SESCO GROUP

Environmental Investigation & Remediation

October 25, 2013

Ms. Shelly Lam, LPG
On-Scene Coordinator
U.S. Environmental Protection Agency, Region 5
Emergency Response Branch #1
2525 North Shadeland Avenue, Suite 100
Indianapolis, IN 46219

RE: Revised Quality Management Plan & Revised Contractor Notification Submittal
U.S. EPA Directed Time-Critical Removal Action
Kokomo Dump Site
1130 South Dixon Road
Kokomo, Indiana 46901
U.S. EPA Site Spill ID #C564
SESCO Project #4108

Dear Ms. Lam:

Pursuant to the requirements of the *Administrative Settlement Agreement and Order On Consent For Removal Action,* effective August 5, 2013, for the above referenced facility (hereafter referred to as "Site"), SESCO Group (SESCO) is pleased to provide the United States Environmental Protection Agency (U.S. EPA) with a revised Quality Management Plan (QMP) and notification of the proposed contractors for the required work. The following outlines the information being submitted.

PROPOSED SUBCONTRACTORS (Revised List)

SESCO will partner with the following companies to complete the work. A copy of each company's Statement of Qualification is included in **Appendix A**.

Land Surveying Company
Miller Surveying, Inc.
Mr. Nathan Althouse, Indiana Registered Land Surveyor #LS20400007
948 Conner Street
Noblesville, IN 46060
Phone: (317) 773-2644
Email: nalthouse@msinc.us

Phase I Environmental Site Assessment Provider
Morgan-Clark Associates, LLC
Ms. Betsy McNamara, CHMM, C.P., President/Owner
403 Church Street
Vincennes, IN 47591
Phone: (269) 806-5185
Email: bmcnamara@mcenv.com
Website: http://www.mcenv.com

Private Utility Locating Services Provider
Accutek Radar Imaging
Mr. Scott Copp, President/Owner
9876 North Dayhuff Lane
Mooresville, IN 46158
Phone: (317) 690-0053
Email: sales@accutekradar.com
Website: http://www.accutekradar.com

Geophysical Survey Services Provider
Prism GeoImaging
Mr. John Vanderlaan, LPG, PG, President/Owner
11057 Allisonville Road, Suite #144
Fishers, IN 46038
Phone: (269) 806-5185
Email: jvanderlaan@prismgeo.com
Website: http://www.mcenv.com

Excavation & Remediation Contractor
Environmental Restoration, LLC
Mr. Terry LeMasters
1666 Fabick Drive
St. Louis, MO 63026
Phone: (801) 209-1731
Email: t.lemasters@erllc.com
Website: http://www.erllc.com

Drum Disposal Contractor
American Industrial Services, LLC
Mr. Greg Spears, CHMM, Vice President
8500 Georgetown Road
Indianapolis, IN 46268
Phone: (317) 871-4091
Email: spears@aecindy.com
Website: http://www.americanenvironmental.net

Analytical Laboratory Services
Pace Analytical Services, Inc.
Mr. Mick Mayse, Project Manager
7726 Moller Road
Indianapolis, IN 46268
Phone: (317) 875-5894
Email: mick.mayse@pacelabs.com
Website: http://www.pacelabs.com

SESCO QUALITY MANAGEMENT PLAN

In accordance with Section VII, Paragraph 12 of the *Administrative Settlement Agreement and Order On Consent For Removal Action*, effective August 5, 2013, SESCO is pleased to provide the U.S. EPA with a revised SESCO QMP. A copy of the QMP is included in **Appendix B**.

We hope this information fulfills the requirements set forth by the U.S. EPA. SESCO looks forward to working with the U.S. EPA to mitigate environmental impacts on the Site. If you have any questions or require additional information, please contact Brad Adams at (317) 347-9590, Ext. #31.

Sincerely,
SESCO Group

Bradley W. Adams, **CHMM #13162**
Project Manager

William D. Pickard, **LPG #2141**
Senior Project Manager

Brent A. Graves, **LPG #1832**
Chief Operating Officer

CC: Project File
Mr. David L. Guevara, Ph.D., Taft Stettinius & Hollister LLP
Mr. Lawrence McCormack, City Attorney, City of Kokomo, Indiana

LIST OF APPENDICES

APPENDIX A

Subcontractor Statements of Qualification

Established 1971

MILLER SURVEYING, INC.

LAND SURVEYING AND ENGINEERING
948 Conner Street ▪ Noblesville, Indiana 46060
(317) 773-2644 ▪ FAX (317) 773-2694 ▪ 1-800-886-2644

Miller Surveying Inc. was founded by Leland D. Miller on April 1, 1971

Miller Surveying Inc. currently has 11 employees with a total of 156 years of experience in surveying (140 years with Miller Surveying Inc.).

Miller Surveying Inc. has extensive files with survey information, which includes Miller Surveying Inc. surveys, surveys by other surveying firms, cornerstone information, County Surveyor records, old deeds, old maps, etc.

The following types of assignments comprise approximately 90% of the total billings of Miller Surveying Inc.

1. Surveyor's Location Reports (unstaked reports for mortgage purposes)
2. Retracement surveys and original surveys for private individuals, realtors and developers.
3. ALTA/ACSM Land Title Surveys
4. Topographic Surveys
5. Site Plans and House Stakes for home builders
6. Subdivision Plats
7. Construction layout for commercial buildings, road constructions and new subdivisions
8. Design surveys for engineering companies and architects
9. Drawing and Descriptions for proposed projects
10. Easement Drawing and Descriptions
11. Replat of portions of existing subdivisions
12. Elevation Certificates (LOMA)
13. Drawing and Descriptions for classified forests
14. Deed research
15. Easement surveys
16. Computation of client deeds
17. Location of monitoring wells for environmental engineers

Established 1971

MILLER SURVEYING, INC.

LAND SURVEYING AND ENGINEERING
948 Conner Street ▪ Noblesville, Indiana 46060
(317) 773-2644 ▪ FAX (317) 773-2694 ▪ 1-800-886-2644

Lee Miller, LS

President/Project Manager

Over 54 years experience in:

- Management
- ALTA/ACSM Land Title Surveys
- Legal Research
- Site Planning
- Retracement Surveys
- Original Surveys
- Topographic Surveys
- Construction Layout
- Preparation of Property Descriptions
- Preparation of Easement Descriptions

K. Nathan Althouse, LS

Director of Land Surveying

Over 16 years experience in:

- Legal Research
- Boundary Surveys
- Topographic Surveys
- Surveyor's Location Reports
- ALTA/ACSM Land Title Surveys
- Preliminary Subdivision Design
- Stormwater and Detention Calculations
- Preparation of Property Descriptions
- Preparation of Easement Descriptions
- Monitoring Well & Soil Boring Surveys
- Construction Control Layout
- Engineering Surveys
- Site Surveys
- Utility Surveys

Martin Jones
Project Surveyor
Autocad Technician

Over 13 years experience in:

- Auto-cad
- Construction Staking
- ALTA/ACSM Surveys
- Surveyors Location Reports
- Topographic Surveys
- Legal Research
- Route Surveys
- Right of Way Exhibits
- Easement Exhibits
- Original Surveys
- Retracement Surveys
- As-Built Surveys
- Monitoring Well & Soil Boring Surveys

Brad Dean
Director of Residential and Commercial Design
Senior Autocad Technician

Over 19 years experience in:

- AutoCAD

Over 15 years experience in:

- Construction Staking
- Construction Layout
- Commercial Site Plans
- Commercial Grading Plans
- Commercial Landscaping Plans
- Commercial Utility Plans
- Commercial Erosion Control Plans
- Topographic Surveys
- ALTA/ACSM Surveys
- Topographic Surveys
- Original Surveys
- Retracement Surveys
- As-Built Surveys
- Estimating
- Elevation Certificates
- LOMA Certificates
- Flood Plain Designation
- Septic Design
- Residential Site Plans
- Safety Manager

Brian Hovermale
Crew Chief
21 Years

- Commercial Site Plans
- Commercial Grading Plans
- Commercial Landscaping Plans
- Commercial Utility Plans
- Commercial Erosion Control Plans
- Topographic Surveys
- ALTA/ACSM Surveys
- Topographic Surveys
- Original Surveys
- Retracement Surveys
- As-Built Surveys
- Monitoring Well & Soil Boring Surveys
- Surveyors Location Reports
- Site Surveys
- Utility Surveys
- Construction Staking
- Elevation Certificates
- LOMA Certificates
- Residential Site Plans

Burton Rhea
Crew Chief
11 Years

- Commercial Site Plans
- Commercial Grading Plans
- Commercial Landscaping Plans
- Commercial Utility Plans
- Commercial Erosion Control Plans
- Topographic Surveys
- ALTA/ACSM Surveys
- Topographic Surveys
- Original Surveys
- Retracement Surveys
- As-Built Surveys
- Monitoring Well & Soil Boring Surveys
- Surveyors Location Reports
- Site Surveys
- Utility Surveys
- Construction Staking
- Elevation Certificates
- LOMA Certificates
- Residential Site Plans

Adam Althouse
Crew Chief
4 Years

- Commercial Site Plans
- Commercial Grading Plans
- Commercial Landscaping Plans
- Commercial Utility Plans
- Commercial Erosion Control Plans
- Topographic Surveys
- ALTA/ACSM Surveys
- Topographic Surveys
- Original Surveys
- Retracement Surveys
- As-Built Surveys
- Monitoring Well & Soil Boring Surveys
- Surveyors Location Reports
- Site Surveys
- Utility Surveys
- Construction Staking
- Elevation Certificates
- LOMA Certificates
- Residential Site Plans

Conner Brown
Rod Man
1 Years

Juan Garcia
Rod Man
6 Months

Established 1971

MILLER SURVEYING, INC.

LAND SURVEYING AND ENGINEERING
948 Conner Street ▪ Noblesville, Indiana 46060
(317) 773-2644 ▪ FAX (317) 773-2694 ▪ 1-800-886-2644

Leland D. Miller

LS 800-40083
August 1, 1970
State of Indiana

Highway Technician Degree
Purdue University
May, 1958

Date of Employment
April 1, 1971 to present

LS 20400007
January 12, 2004
State of Indiana

K. Nathan Althouse

Associate Degree
Architectural Engineering Technology
Purdue University
May 14, 2003

Bachelor of Science
Construction Engineering
Purdue University
May 9, 2001

Associate Degree
Civil Engineering Technology
Purdue University
May 12, 1999

Date of Employment
April 15, 2004 to present

Brad Dean

Associate Degree
Architectural Design
Lincoln Tech Institute
August 15, 1998

Date of Employment
August 31, 1998

Martin Jones

Associate Degree
Land Surveying & Engineering
Vincennes University
August 15, 3003

Date of Employment
January 12, 2008

STATEMENT OF QUALIFICATIONS

Morgan Clark Associates, LLC (Morgan Clark) is a woman-owned business located in Vincennes and Indianapolis, Indiana that provides specialty Phase I Environmental Site Assessment services to state and local governments, financial institutions, Economic Development Corporations, consulting firms, developers and legal firms. All of our personnel have 10-25 years of experience conducting Phase I assessments. Most of our professionals have over 25 years of experience in general consulting services, including assistance with EPA Brownfield grant applications and administration, Phase II investigations, Superfund and LUST investigations, redevelopment consulting and remediation oversight. Morgan Clark personnel also have more than 30 years of experience in state and federal regulatory programs, including RCRA, CERCLA, TSCA, SDWA, UST, LUST, asbestos, lead and soil/groundwater investigations.

What makes Morgan Clark significantly different from standard consulting services is that Phase I work is the only thing that we do. Full-service environmental consulting firms in Indiana have partnered with Morgan Clark for their Phase I clients, because we offer a specific service at better than competitive prices and staff the projects with seasoned professionals.

Morgan Clark personnel who perform site work are required to have completed a 40-hour training course for hazardous waste activities in compliance with federal OSHA 29 CFR 1910.120. Additionally, an 8-hour refresher course is requested every year. Copies of all certificates are on file and will be provided on request.

PROFESSIONAL SERVICES

- Phase I/AAI Compliant Environmental Site Assessments
- Brownfield Redevelopment Consulting
- Targeted Superfund Assessments
- Brownfield Grant Applications
- Investigation Project Referrals

Morgan Clark partners with consulting firms who do offer investigation capabilities, if that service is required. Since our personnel have conducted investigations and remediation in the past, we are able to communicate the client's need clearly and can offer advice on project scoping, consultant selection, remediation alternatives and redevelopment options.

WHAT OUR PARTNERS DO

- Phase II Environmental Site Assessments
- Underground Storage Tank Closures and Site Investigations
- Remediation and Monitoring
- Brownfield Redevelopment Services and Grant Assistance
- Historical Insurance Recovery

KEY PERSONNEL

Morgan-Clark environmental professionals have a minimum of ten to thirty-five years of experience to ensure that your project results are of the highest quality possible. Our alliance partners have been selected to enhance our capabilities so that you receive the most comprehensive services at the most affordable cost.

Morgan Clark personnel have experience in contracting with commercial lenders, brokers, real estate professionals, developers, purchasers of property, local units of governments and EPA Brownfield Assessment Grantees to conduct Phase I Environmental Site Assessments and Targeted Superfund Assessments on specific sites. Activities included due diligence activities, quarterly reports, developing public outreach materials and preparing site summaries for use in marketing individual properties.

Special training and conference attendance by Morgan Clark personnel is summarized below:

ASTM Vapor Intrusion Standard Training
Annual National Brownfields Conferences
ASTM E-50 Negotiated Rulemaking Committee – AAI Standard (Commenter, ACHMM)
ASTM RBCA Training for Petroleum Sites
National Brownfield Association Chapter Conference
EDR AAI Training

Key personnel resumes are attached.

INSURANCE COVERAGE

General Liability - $1,000,000 per occurrence/$2,000,000 aggregate
Professional Liability - $1,000,000 per occurrence
Workmen's Compensation – Statutory

Betsy McNamara, CHMM, C.P.
Senior Project Manager

Professional Profile

- Phase I Environmental Site Assessments
- Phase II Site Investigations
- Baseline Environmental Assessments
- Superfund Investigations
- RCRA Hazardous Waste Facility Closures
- Underground Storage Tank Closures
- Brownfield Assessment Grants
- Brownfield Remediation
- Environmental Compliance Auditing
- State Hazardous Site Investigations

Education

B.S. Chemistry, Math & Physics, University of Illinois, Urbana, Illinois
M.S. Management courses, Aquinas College, Grand Rapids, Michigan

Professional Summary

Ms. McNamara has over thirty years of experience in environmental site investigations, soil and groundwater remediation, LUST/UST closures, facility permitting and closure, regulatory compliance, U.S. EPA Brownfield/Superfund/USTfield Assessment Grant applications and project management, MDEQ LOE/PM project management, and wastewater treatment. Experience includes assisting nationwide industrial, governmental, banking and insurance clients and their legal representatives with issues regulated under state and federal environmental programs.

Project Experience

Prepared U.S. EPA Brownfield Assessment Grants, Superfund Redevelopment Grant and Supplemental Greenspace funding applications for numerous Michigan governmental units. Managed projects under the grants that included Inventories, PhaseI/II ESAs, BEAs, Due Care Plans, cleanup planning, Brownfield plan development and review, community outreach and redevelopment planning. Assisted private clients with risk management and reuse options for commercial/industrial sites, affordable housing development; and coordination of projects for state funding for waterfront redevelopment and department of transportation grants. Responsible for business development for Brownfield redevelopment services to units of government, developers, banks and brokers. Supervised project teams on project activities and managed activities related to business planning proposal development and financial management.

Performed Phase I and Phase II ESAs for Brownfield Assessment Grant Projects, financial institutions, industrial and automotive facilities, real estate developers, property managers, and insurance companies using ASTM-05 and AAI protocols.

Performed and managed underground storage tank closures and release investigations, including delineation activities, assessment reports, corrective action plans and risk assessments.

Prepared Facility Operating Permits for Hazardous Waste Treatment/Storage/Disposal Facilities (TSDFs) in Michigan. Participated in the startup of the tertiary municipal wastewater treatment facility in

Betsy McNamara

Kalamazoo, Michigan and developed and implemented TSDF closures for automobile manufacturing facilities, foundries, industrial facilities and waste treatment recycling facilities in MI, IL, OH, IN, WI, MS, CO, FL, CT, NJ, CA and Canada.

Conducted environmental compliance audits for metal fabricating facilities, plastics forming facilities, electronic equipment manufacturing facilities, metal plating operations and automobile manufacturing facilities.

Laboratory Director of a suburban Chicago, Illinois potable drinking water plant. Determined chemical doses for treatment chemicals and conducted analytical analyses of water for trace metals, bacteriology, general chemistry and organic compounds. Has been certified by USEPA for general chemistry and trace metals analyses of drinking water using atomic absorption techniques; and by Illinois Department of Public Health for bacteriological analyses. Assisted USEPA personnel in development of atomic absorption methods for graphite furnace analyses of lead and cadmium.

Representative Project Experience

Site Remediation, Indiana Department of Transportation

Project Manager for a $500,000 underground storage tank remediation on a former INDOT maintenance site prior to redevelopment for pharmacy construction. Supervised remediation contractors, managed the project budget, screened excavated soil for disposal, documented daily remediation activities, obtained closure samples and prepared cleanup documentation report.

Brownfield Assessment Grants

Prepared and submitted assessment grant applications for numerous cities in Indiana and Michigan. Since 1998 has provided consulting services to the cities of Vincennes IN, Allegan MI, Wayne County IN, and a consortium of Detroit area municipalities to conduct areawide Phase I and Phase II ESAs, community outreach, quarterly reporting and agency liaison activities. Projects included investigation of large industrial sites and contaminated land planned for Greenspace activities.

Brownfield Investigations

Former Blackford Glass Site, Vincennes, Indiana – Conducted an AAI/ASTM compliant Phase I ESA on the former glass manufacturing and coal gas manufacturing plant that was abandoned in the late 1960s. The investigation identified two coal gas manufacturing plants that operated from the early 1900s to the late 1950s, cinder and ash landfilling on the northern portion of the site and fuel storage. Prepared a Phase II work scope to investigate RECs to evaluate the need for cleanup funding prior to construction of Indiana Military Museum that is planned for the parcel. This Brownfield redevelopment will be the endpoint of Vincennes' Riverwalk project that will link the museum with the Wm. Henry Harrison National Park, downtown Vincennes and Vincennes University.

Johnson Bulk Oil, Vincennes, Indiana – Conducted a peer review of previous consultants work to evaluate the need for cleanup funding prior to restoration of the site as the historical walnut grove associated with President Wm. Henry Harrison's residence. This Brownfield redevelopment is planned as the northern entry point to the historic Riverwalk greenspace project from Vincennes University south to the planned Indiana Military Museum.

Betsy McNamara

Training and Certifications

Certified Hazardous Materials Manager, Masters Level, #11095
Certified Underground Storage Tank Professional, State of Michigan
40-Hour Hazwoper Training
8-Hour Supervisor Training
ASTM RBCA Training for Petroleum Release Sites
ASTM Vapor Intrusion Standard Training

Professional Affiliations

National Brownfield Association
ACHMM Governmental Affairs Subcommittee
ASTM E-50 Subcommittee, Phase I Environmental Site Assessments
Indiana and Michigan Associations of Environmental Professionals

Marian L. Hensley

Senior Project Manager

Professional Profile

- Phase I Environmental Site Assessments
- NEPA Site Assessments
- Environmental Compliance Auditing
- Asbestos Assessments
- Indoor Air Quality
- Industrial Hygiene
- Mold Assessments
- Lead in Paint Assessments

Education

B.A. History, Indiana University

Professional Summary

Ms. Hensley has over 12 years of experience in conducting environmental assessments of property for government agencies, lending institutions and industrial clients. Ms. Hensley regularly interacts with national account managers, insurance representatives, property managers, school districts and various remediation and construction contractors. She has been involved with proposal writing, budgeting, scheduling, personnel and laboratory coordination, QA/QC of final reports, sales and marketing. She has performed over 600 environmental site assessments following specific ASTM and AAI requirements of a broad range of properties, including manufacturing, commercial, medical, recycling, transportation, automotive and retail facilities as well as single and multi-tenant residential properties, filling stations and vacant land. Hs. Hensley has been responsible for assisting clients with meeting and maintaining compliance with state and federal regulations pertaining to asbestos, lead-based paint, indoor air quality and traditional industrial hygiene. She is experienced in catastrophe response situations with commercial, medical and residential properties, including those impacted by Hurricane Katrina in New Orleans, Louisiana.

Project Experience

Indoor Air Quality/Sensient Flavors/Indianapolis, Indiana.

Performed industrial hygiene air sampling for carbon dioxide, carbon monoxide, temperature, relative humidity and various acids to determine employee exposure levels. Also performed area monitoring and personal exposure monitoring for noise exposure. Where applicable, determined whether employees were being exposed above the OSHA permissible exposure limit during the course of an eight-hour shift. This sampling took place over the course of several day and several shifts.

Marian L. Hensley

Asbestos Inspection/Diocese of Lafayette, Haynes International, Indiana

Conducted asbestos inspections and AHERA re-inspections of building materials for various schools and manufacturing facilities. The scope and duration of these projects ranged from several days for school re-inspections to several weeks for manufacturing sites, including updating CAD-based facility drawings.

Microbial Remediation Oversight/VeriClaim - Beau Rivage Resort and Casino, Biloxi Mississippi; Confidential Insurance Companies - Hotels, Hospitals and Office Buildings Various Locations in Louisiana.

Project Manager responsible for overseeing the actions of the Certified Industrial Hygienist of record and the on-site remediation contractor, and scheduling available staff to meet client needs. Responsible for moisture mapping, visual assessments, remediation plan preparation, post-remediation air sampling, document review, enforcing use of best industry practices, ensuring compliance with approved scope-of-work, monitoring project status and schedule, updating clients and final report preparation. When appropriate, attended daily project meetings and issued verbal and written updates to the client regarding progress and potential concerns. These multi-million dollar projects took place over several months with a rotating staff.

Environmental Site Assessment/Candlewood Hotels/Various Locations throughout US

Managed a portfolio of forty-six nationwide sites. Provided coordination of the Phase I Environmental Site Assessments with project personnel, assigned projects to regional offices and provided senior management review of the reports. Also performed numerous additional Phase I ESAs and limited asbestos surveys for this client at hotel properties. Work for this client was performed over the course of several years.

Environmental Site Assessment/Walgreens/Various Locations throughout the US

Completed numerous Phase I ESAs and limited asbestos surveys on varied property types including retail shopping centers, commercial office buildings, banking facilities, medical clinics, industrial facilities, filling stations, restaurants, residential buildings, various retail facilities, and vacant parcels. These assessments often involved several parcels, portions of, or entire city blocks. Typical timeframes for these projects was approximately three weeks and work for this client was performed over the course of several years. Phase II work resulting from the Phase I Environmental Site Assessments was often also awarded.

Professional Registrations/Licenses

State of Illinois Dept. of Public Health, Asbestos Professional License
State of Indiana Dept. of Environmental Management, Asbestos Inspector License

Marian L. Hensley

The American Indoor Air Quality Council, Certified Microbial Investigator (CMI)
State of Indiana Lead Risk Assessor

Training

40-Hour HAZWOPER Certified, per OSHA Standard 29CFR 1910.120

Professional Affiliations

Indianapolis Commercial Real Estate Women
Member of the American Indoor Air Quality Council
Indiana Environmental Association Professionals

Stephanie Deckard
Project Manager

Professional Profile

- Phase I and II Environmental Site Assessments
- Soil and Groundwater Sampling
- Wetland Delineation
- Hydrogeolic Investigations
- LUST Investigations
- Solid and Hazardous Waste Management
- Industrial Site Assessments

Education

B.A. Geology, Indiana University Purdue University Indianapolis

Professional Summary

Ms. Stephanie Deckard is a consulting Project Manager for Morgan Clark with over 13 years of experience conducting Phase I Environmental Site Assessments. Ms. Deckard received a B.A. with a major in Geology from Indiana University Purdue University at Indianapolis (IUPUI). Upon graduation, she worked as a project manager for Groundwater & Environmental Services (GES) in Exton Pennsylvania, conducting Phase I and Phase II site assessments, soil and groundwater sampling, and technical report writing. Ms. Deckard returned to Indiana where she worked as a project manager for Lee & Ryan Environmental Consulting, Inc. Duties included project management, technical report writing, field investigations, soil and groundwater sampling, hydrogeologic investigations, and wetland delineation. Ms. Deckard also performed environmental investigations pertaining to leaking underground storage tanks, dry cleaner facilities, industrial properties, and solid and hazardous waste storage facilities.

Project Experience

- Phase I ESA's in Indiana, Ohio, Illinois, New Jersey, and Pennsylvania of commercial, industrial, residential, and agricultural properties (2000-Present).
- LUST investigations and remedial projects (Indiana, Ohio, Illinois, Nebraska, Georgia, Pennsylvania 2000-2013).
- Wetland Delineation (2006-2008)

Project Experience

OSHA Hazardous Waste Site Operator Certified (HAZWOPER), March 2000
8-Hour HAZWOPER Refresher, 2000-2013

10-21-13

Accutek Radar Imaging
9876 N. Dayhuff Lane
Mooresville, IN 46158
(P) 317-690-0053

Re: Accutek Radar Imaging Services

Accutek Radar Imaging is a full service GPR and utility locating service provider utilizing ground penetrating radar equipment and EM locate equipment to locate and identify utility services and subsurface anomalies / structures.

Accutek Radar Imaging has been in business since 2005 and received all GPR training from GSSI which is the equipment manufacturer and has a training facility in Salem New Hampshire. There is currently not a governing body that regulates training and certification for GPR or utility locating services.

Any further questions can be directed to:
Scott Copp
President
Accutek Radar Imaging
317-690-0053

Prism GeoImaging

STATEMENT OF QUALIFICATIONS

Prism GeoImaging, Inc., established in January 2008, provides geophysical and subsurface imaging services to public and private sector clients. Prism GeoImaging, Inc. is eager to represent your organization as a technically independent extension of your professional staff. Our goal is to provide you with excellent service using senior, highly experienced personnel, and maintain cost-effective rates for our services. We will provide you with responsive and professional service using dedicated and skilled personnel.

PROFESSIONAL SERVICES

The professional services we have provided to our clients are diverse. We have considerable experience in the application of geophysics to many areas including environmental investigation and remediation, geotechnical engineering, construction, water supply, natural resources, archeology, and cultural resource management. We are able to derive innovative and effective solutions to most subsurface imaging problems. If expert witness or litigation support services are required, we can provide this level of service. Services we have provided to private and public sector clients include the following:

- Search for underground storage tanks (USTs) and steel drums
- Mapping of municipal or industrial landfills
- Brownfield site investigations of historical infrastructure and wastes
- Contaminant plume and pathway detection and mapping
- Depth to bedrock and rippability analysis
- In-situ shear wave (V_s100) velocity determination, via MASW, ReMi, Cross-hole and down-hole seismic
- Sand and gravel mapping
- Aquifer characterization and mapping
- Karst limestone investigations
- Borehole geophysical and video logging
- Relict utility mapping (not subsurface utility engineering or SUE)
- High resolution examination of pavement, floors, and walls
- Characterization of historic and prehistoric cemeteries and settlements

PERSONNEL

Prism GeoImaging is wholly owned by John Vanderlaan. A brief description of his professional experience is presented below, and a resume for Mr. Vanderlaan is available by request.

JOHN VANDERLAAN, LPG, PG: Mr. Vanderlaan is a founding Principal of Prism GeoImaging, Inc. and has been a professional practicing geophysicist since 2000. He is a Licensed Professional Geologist in Indiana (#IN2146), Tennessee (#00005722), Illinois (#196.001362); and a Professional Geologist in Kentucky (#KY-2534). He has been engaged in a variety of engineering and environmental projects including subsurface geophysical investigations, site characterization studies, and environmental remediation operations. Mr. Vanderlaan's specialty is characterization of the subsurface using the geophysical methods of electromagnetic conductivity and metal detection, two-dimensional electrical resistivity, downhole logging, seismic refraction, seismic MASW, ground-penetrating radar (GPR), and gravimetry. Mr. Vanderlaan also has expertise in Global Positioning System (GPS) instruments, operation and software, and the incorporation of GPS positioning information with geophysical data acquisition. Mr. Vanderlaan has an M.S. in Geology from Bowling Green State University in Ohio, and a B.S. in Geology from Calvin College in Grand Rapids, Michigan.

PARTIAL CLIENT LIST

Prism GeoImaging, Inc. has proudly served the following clients since our inception in 2008:

- Ortman Drilling
- Peerless Midwest
- Bowser-Morner, Inc.
- Capitol Engineering
- Consulting Services Incorporated of Kentucky
- Earth Exploration, Inc.
- Patriot Engineering and Environmental, Inc.
- Active Environmental
- Alliance Environmental
- American Structure Point

- ARCADIS
- Ark Engineering Services
- Astbury Environmental Engineering (Wilcox)
- ATC Associates, Inc.
- August Mack Environmental, Inc.
- Bruce Carter Associates (BCA)
- Delta Consultants
- Environ
- Environmental Consultants + Contractors Inc. (ECC)
- Environmental Resources Management (ERM)
- HydroTech
- IWM Consulting Group
- Professional Service Industries (PSI)
- RMT, Inc.
- Roux Associates, Inc.
- SESCO Group
- TetraTech
- Troy Risk, Inc.
- Case New Holland
- Duke Energy
- Plews Shadley Racher & Braun
- Town of Brownsburg, Indiana

LOCATION

Prism GeoImaging, Inc. is a small business enterprise, fully insured (see below), with offices in Hamilton County, Indiana. Our contact info is presented below. Lacking the corporate overhead, Prism GeoImaging, Inc. can provide quality services at cost effective prices. With the shrinking budgets for both public and private sector operations, Prism GeoImaging, Inc. realizes that project cost management is an important consideration for every client.

We appreciate the time you have spent reviewing our Statement of Qualifications and sincerely hope that Prism GeoImaging, Inc. can be of service to you in the near future. We will make every effort to provide you with responsive and efficient service to complete your project on time and on budget. Please do not hesitate to call us if we can be of any assistance.

John Vanderlaan, LPG
President/ Geophysicist
11057 Allisonville Road, #144
Fishers, Indiana 46038-2331
Phone: 317-379-5796
Fax: 317-849-5755
E-mail: jvanderlaan@prismgeo.com

INSURANCE

The insurance coverages that Prism GeoImaging, Inc. routinely carries are presented below. Additional and/or increased coverages can be obtained upon request.

General Liability	
Each Occurrence	$1,000,000
Premises/Operations Limit	$300,000
Products-Completed Operations Aggregate Limit	$2,000,000
Personal & Advertising Injury Limit	$1,000,000
General Aggregate (per Project)	$2,000,000
Automobile Liability Limit	$1,000,000
Excess/Umbrella Liability	$2,000,000
Professional Liability Limit	$1,000,000
Worker's Compensation and Employers' Liability	Statutory Limits
Medical Expense Limit (Any One Person)	$5,000

STATEMENT OF QUALIFICATIONS

Corporate Office
1666 Fabick Dr.
St. Louis, MO 63026
636-227-7477
24 hr 888-814-7477

Atlanta Regional Office
6940 Commercial Dr.
Morrow, GA 30260
770-961-9272

Binghamton Regional Office
627 Court St.
Binghamton, NY 13901
607-729-2270

Boston Regional Office
40 Messina Dr.
Braintree, MA 02184
781-794-1680

Chicago Regional Office
16660 Canal St.
South Holland, IL 60473
708-333-9915

Cincinnati Regional Office
4215 Curliss
Batavia, OH 45103
513-724-0086

Cleveland Regional Office
7007 Engle Rd., Suite E
Middleburg Heights, OH 44130
440-234-7477

Denver Regional Office
4870 Newport St.
Commerce City, CO 80022
303-382-1258

Detroit Regional Office
6812 Nineteen ½ Mile Rd.
Sterling Heights, MI 48314
586-254-6553

Hartford Regional Office
110 Granby
Bloomfield, CT 06002
860-769-8229

Houston Regional Office
15255 Gulf Freeway,
Suite 137 D
Houston, TX 77034
281-464-7477

Indianapolis Regional Office
15400 Herriman Blvd.
Noblesville, IN 46060
888-814-7477

Libby Regional Office
32000 US Highway 2
Libby, MT 59923-3027
406-293-2082

Omaha Regional Office
3510 N. 33rd St.
Omaha, NE 68111
402-451-1314

Raleigh Regional Office
3222 Wellington Ct., Suite 114
Raleigh, NC 27615
919-855-9082

Salt Lake City Regional Office
2140 N. Redwood Rd., Suite 10
Salt Lake City, UT 84116
801-746-6133

St. Paul Regional Office
2284 Terminal Rd.
Roseville, MN 55113
651-633-6014

ENVIRONMENTAL RESTORATION

PROVIDING QUALITY ENVIRONMENTAL REMEDIATION
EMERGENCY RESPONSE SERVICES
ENVIRONMENTAL CONSTRUCTION
PROJECT STAFFING

PROVIDING QUALITY ENVIRONMENTAL REMEDIATION
EMERGENCY RESPONSE SERVICES
ENVIRONMENTAL CONSTRUCTION
PROJECT STAFFING

EMERGENCY RESPONSE

- ***Marine / Waterway Spills***
- ***Railroad Derailments/ OTR Trucking Incidents***
- ***Industrial/ fixed Facility Incidents***
- ***Known and Unknown Chemical Releases Response***
- ***Pipeline Ruptures and Floods***
- ***Industrial Fires***
- ***Comprehensive Contingency Planning***

SITE REMEDIATION

- ***Decontamination / Demolition***
- ***Lead Contaminated Soil Excavation/Treatment/Disposal***
- ***Mine Site Remediation***
- ***Asbestos Abatement –Identification,***
- ***Sampling, Removal, Disposal***
- ***Waste Containerization / Disposal***
- ***Heavy Metals/Pesticide Contamination Residential Excavation***
- ***Site Restoration***

ENVIRONMENTAL CONSTRUCTION

- ***Cap Installation***
- ***Repository/Cell Construction***
- ***On-site Treatment System Design, Installation, Operation and Management***
- ***Liner Installation***
- ***Wetland Remediation and Restoration***
- ***Access and Haul Road Construction***

Environmental Restoration LLC (ER) is a provider if environmental emergency response, site remediation and environmental construction services.

Established in 1997, ER founding partners average 25 years of environmental response and remediation experience directing projects for federal, state and commercial clients.

Our objective with each assignment is to provide cost effective and efficient project execution. Our diverse project work history allows us to develop an experienced-based operations approach for task orders and assignments. We use skilled personnel trained in task specific technologies to implement job plans. Our project work plans are designed and developed to meet scope of work (SOW) requirements and client expectations.

ER personnel maintain current technical training and up-to-date industry required certifications and credentials. In order to maintain compliance with federal and state regulations and requirements, we are certified to provide specific trainings and refresher courses in-house. To maintain Level A capability readiness, ER's Level A trained personnel conduct annual simulated response exercises requiring Level A expertise.

ER's management team is supported with core field staff of site superintendents, foremen, equipment operators, truck drivers and field technicians. This core personnel group average 15 years of response and remediation project experience.

Since our founding, ER management and crews have provided our services for over 2000 environmental remediation and non-time critical emergency response projects and ER's Emergency Response teams have responded to 3000 time-critical incidents.

EMERGENCY RESPONSE

ER's personnel have responded to some of the nation's largest oil spills. Our trained personnel are on-scene within hours bringing the equipment and technical expertise to solve the problem. Highlights of our emergency response experience are listed below:

- **Routinely manage emergencies ranging in value from $1K to $34M**
- **Member / Partner of a nationwide network responding to spills of national significance**
- **Maintain established emergency response agreements with commercial and government clients**
- **Nationwide response service for catastrophic oil spills - OSRO Member # 0156**

  Average 300+ responses to emergency incidents per year
- **Responded to major petroleum spills including Valdez AK, Buzzard Bay MA, Delaware River NJ & PA, Deepwater Horizon**
- **Responded to the anthrax remediation at NBC Studios in NY and the Senate Building in DC**
- **Responded to the NASA Columbia Space Shuttle accident**
- **Provided immediate resources including personnel and equipment in responding to Hurricanes Katrina and Rita**

Providing Emergency Response services for time critical incidents is a priority at ER. Our skilled response teams provide emergency response services for road, rail, waterway and fixed facility incidents from all ER office locations. ER's team of Response Managers and field techs are known in the industry for response expertise and have been trained specifically for response to accidental releases, natural disasters and manmade catastrophes.

Because we've been on-scene providing services for more than 3500 time critical incidents, we move quickly and efficiently to assess the scope of remedial action required. Our objective at each incident is to provide efficient cleanup, minimize environmental damage, contain recovery costs and limit disruption to our client's on-going operations.

ER maintains a centralized and dedicated 24-hour, 7 day a week Emergency Response Notification System. A call to **888-814-7477** provides immediate contact with an ER Response Manager who will assess the incident and mobilize personnel and equipment to the incident site.

ER company-owned equipment includes vacuum trucks, utility trucks, response trailers, a fleet of 16', 20' and 28' boats and oil recovery systems materials. To meet any equipment needs, we maintain a nationwide network of vendor contracts for rental equipment, transportation and disposal and project related materials. Our response teams and equipment can mobilized immediately from all ER office locations, arriving on-scene quickly, a necessity in dealing with time critical emergencies.

We offer the following response services:

- ***Inland / Marine Oil Spills / Hazardous Material Spills***
- ***Railroad Derailments / OTR Incidents***
- ***Industrial / Fixed Facility Incidents***
- ***Response to Known and Unknown Chemical Releases***
- ***Dedicated Level A Response Team***
- ***Response Agreements for Regulatory Obligations***

Emergency Response to unknown container site

Emergency Response to Columbia Space Shuttle

Level A Response to HF leaking containers

SITE REMEDIATION

Environmental Restoration's experience in removal and remediation spans 20 years performing work throughout the U.S. Our experience is reflected in the projects we manage. Highlights of our remediation experience and our multi-task contracts are listed below:

- **Prime contractor for the $54M Emergency and Rapid Response Contract for USEPA Region 8**
- **Prime contractor for the $70M Emergency and Rapid Response Contract for USEPA Region 7**
- **Prime contractor for the $101M Emergency and Rapid Response Contract for USEPA Region 5**
- **Prime contractor for the $131M Emergency and Rapid Response Contract for USEPA Region 4**
- **Prime contractor for the $143M Emergency and Rapid Response Contract for USEPA Region 1**
- **Prime contractor for USEPA Region 7 Omaha Lead Site Specific Contract valued at $18M**
- **Prime contractor for the State of Missouri Department of Natural Resources Hazardous Substance Cleanup and Disposal**
- **Team member for Emergency and Rapid Response Contract valued at $25M for USEPA Region 6**

As a small environmental services business, we specialize in providing cost effective remediation services to a broad range of industrial, commercial and governmental clients. We manage environmental removal and restoration projects ranging from simple drum and soil excavations to large-scale residential cleanup and complex facility decontamination and demolition. We are experienced in and offer a wide variety of treatment technologies and techniques that include traditional as well as state of the art approaches to meet and solve our clients' environmental remediation needs.

We possess the capabilities, requisite skills and experience to implement efficient and effective solutions. Operating from 17 offices, our Project/Response Managers and field operations personnel bring the expertise to manage and implement all categories of environmental remediation.

We offer the following environmental Site Remediation services:

- ***Structural and Facility Decontamination and Demolition***
- ***Mine Site Remediation***
- ***Contaminated Soil Excavation and Treatment***
- ***PCB Decontamination, Soil Removal and Treatment***
- ***Asbestos Abatement including Identification, Sampling, Removal, Disposal***
- ***Multiple Waste Stream Characterization, Containerization, Disposal***
- ***Residential Property Remediation for Lead and Pesticide Contamination***
- ***Site Restoration including Wetland Restoration***

Soil Excavation and On-site Treatment

Structural Decontamination and Demolition

Residential Excavation and Restoration

ENVIRONMENTAL CONSTRUCTION

Environmental Restoration has constructed containment systems, installed and operated treatment systems and closed facilities across the country. Our experience is reflected in the projects we manage. Highlights of our environmental construction experience are listed below:

- **Constructed containment systems including cells and caps**
- **Installers of liner systems including clay, GCL, HDPE and synthetic membranes**
- **Managed eight soil and groundwater treatment projects at Superfund program sites**
- **Installed, operated and maintained various systems for treatment of contaminated groundwater and soils**
- **Constructed roadways, sidewalks and parking areas during residential restoration projects**
- **Wetland remediation, construction and restoration**

ER's Environmental Construction experience includes installation of containment systems, construction/ operation for soil and groundwater treatment systems and the successful execution of numerous technically challenging environmental construction projects. Our crews construct and maintain soil treatment cells, install liners, construct soil and concrete caps, close landfills and manage various civil construction projects. When required by the project scope of work, we construct roads, grade sites, install sidewalks, parking lots, curbs and gutters during restoration projects.

We are experienced in and offer a wide variety of treatment technologies and systems that range from traditional to state of the art technical approaches to meet and solve our clients' environmental construction needs.

ER's project managers have direct experience constructing and operating groundwater systems for treatment of hydrocarbon and solvent contamination. Our expertise also includes soil treatment systems for lead and PCB contamination. We have the technical expertise and capability to construct, operate and maintain physical, chemical, thermal and biological treatment systems.

We offer the following Environmental Construction services:

- ***Cap Installation***
- ***Repository / Cell Construction***
- ***On-site Treatment System Design, Installation, Operations and Maintenance***
- ***Liner Installation***
- ***Wetland Remediation and Restoration***
- ***Access and Haul Road Construction***

Construction and Operation of Soil Treatment System

Cell Construction and Capping

Facility Decontamination and Demolition

OIL SPILL

Environmental Restoration maintains dedicated oil spill response equipment to meet contract and regulatory emergency response obligations. As identified below:

- *Met guidelines for and is a certified participant in the Oil Spill Removal Organization (OSRO Member # 0156)*
- *Met the U.S. Department of Homeland Security and the Coast Guard requirements for BOA – Basic Ordering Agreement*
- *USEPA Emergency Response Contracts in 4 EPA regions*
- *COE Rapid Response Contract nationwide and in trust territories*

ER owned boats and spill response equipment

Our oil spill experience includes projects from small inland waterway spills to multi-gallon crude spills, contaminating shoreline property and threatening wildlife. We have an experienced spill labor force who have participated in the major spills occurring over the last 29 years including the Valdez, the Athos I response and most recently at the Deepwater Horizon event in the Gulf of Mexico.

For oil spill containment and cleanup assignments, ER provides a pro-active, cost effective project approach and personnel experienced oil spill response.

ER's added value for spill mitigation includes:

- Provide self-performed turnkey project services
- First Responder trained personnel
- OSHA 1910.120 (HazWoper) certified personnel
- ICS trained personnel
- Provide local resources/personnel to client
- DCAA audited cost tracking system
- Federal Acquisition Regulations compliant procurement

We maintain equipment necessary for immediate response to oil spill incidents, with equipment warehoused at our home office and at each of our 16 regional office locations.

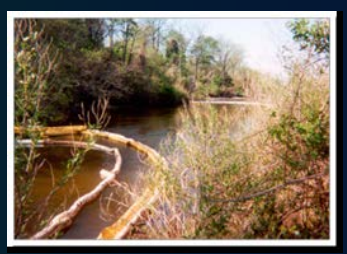
A partial list of ER oil spill specific equipment:

- Fleet of boats, some with work barge capability
- Containment boom – at all locations
- Hot Power Washers/Decontamination Equipment
- Pumps
- Skimmers
- Sorbent materials

ER maintains and is affiliated with OSRO Member, #0156, ISNetWorld, PICs and Browz.

Valdez

Athos I



USEPA Response Action

HEALTH AND SAFETY

Safety is our highest priority at ER. Training hazard recognition and safe work practices is an integral part of ER's corporate culture. We have an exceptional health and safety program evident throughout all levels of our organization. Our primary objective is to eliminate risk of injury or illness for all employees. To facilitate this objective, we conduct hands-on training, classroom and field, in accordance with, but not limited to, OSHA, NFPA, and DOT regulations.

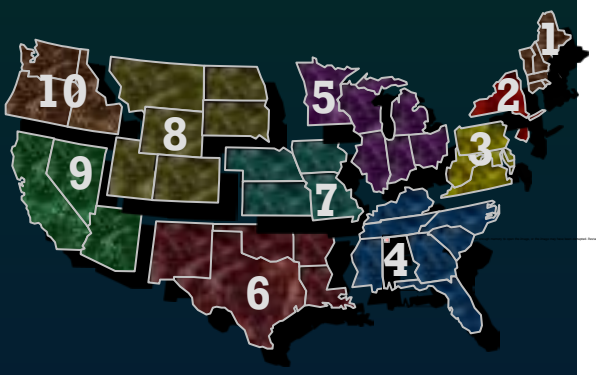
To make training, hazard recognition and safe work practices our main focus every day, we have implemented a corporate-wide Focus on Safety Program. Throughout the year, ER's corporate safety staff oversees on-site and off-site operations and training for all employees to keep workers accountable and current in safety trainings and safe work practices.

ER's Health and Safety Program is management driven and fully compliant with OSHA and state regulations. We recognize that achieving success toward our target goal of "zero incidents" relies on the attitudes and knowledge of every project participant. Safety is an essential component of planning and execution for every project. We provide safe equipment to work with and all necessary personal protection equipment.

ER takes pride in achieving the highest level of safety, quality, and performance. Every ER employee is trained to recognize the importance of a safe workplace, and works with the highest level of awareness to achieve our safety goal of "zero incidents". Our commitment to H&S is reflected in our Experience Modification Rate or EMR, which compares ER's performance record to that of similar firms in the industry. Through diligence, training, and unique loss control management techniques, ER consistently achieves an experience modification rate well below the industry average. Our current EMR is a 0.77.

EXPERIENCE

ER's experience and history of customer satisfaction confirms our ability to meet the demands of difficult projects, across the private sector and government market. This reflects ER's expertise and effort by our managers and field staff. Our project success brings us new clients and opportunities, allowing ER to continue our controlled growth plan.



ER offers our clients diversified and experienced capabilities ranging from remediation, environmental construction and response to all categories of environmental emergencies. Our principals and Project Managers have successfully performed over 5,000 projects across the United States including the Midwest, Southeast, Rocky Mountains and Western regions. These projects range from a few thousand dollars to contain leaking drums to an ongoing $15 million dollar remediation project for zonolite contamination throughout Libby, MT.

ER has conducted various emergency response, site remediation, environmental construction and restoration operations. We have managed activities under government contracts at federal Superfund sites, directed cleanup efforts for PRP groups, managed residential and mine site remediation and facility demolition for private sector clients and responded to some of the largest oil spills and hazardous material incidents in the country. We specialize in residential excavation, mine site remediation facility decontamination and demolition, large scale excavation and treatment system installation, operation and maintenance.

We are currently a contractor to the federal government for seven large remediation contracts covering 32 states. We are the prime contractor to:

- ***USEPA Region 8 for the $54M Emergency and Rapid Response Program (ERRS)***
- ***USEPA Region 7 for the $82M ERRS Contract***
- ***USEPA Region 5 for the $101M ERRS Contract***
- ***USEPA Region 4 for the $131M ERRS Contract***
- ***USEPA Region 2 for the $121M ERRS Contract***
- ***USEPA Region 1 for the $143M ERRS Contract***
- ***Omaha Lead Residential Remediation Contract - $18M***

Additionally, we provide response capabilities as a team subcontractor to the USEPA's Emergency and Rapid Response Contracts in Region 6. We are a team subcontractor to the USACE under both a Pre-placed Remedial Action Contract, and Nationwide Rapid Response Contract. Under the Rapid Response Contract, ER has conducted a wide range of large field remediation projects nationwide.

In the private sector, ER is nationally recognized for a cost effective approach to remediation including large-scale excavation, mine site remediation, residential excavation / restoration, facility decontamination / demolition, cap and repository construction, drum excavation and waste stream management. In the emergency response community, ER is recognized as a national leader, providing trained and qualified staff to respond to chemical releases, oil spills, terrorist acts and natural disasters. ER provides remediation and response services to commercial clients and engineering construction management firms. We also provides field services to many large remediation and emergency response contractors across the country.

Our experience and diverse client base demonstrates our commitment to provide value-added, cost effective capabilities in remediation, environmental construction and emergency response. Highlights of our contract / project experience are shown on the following table.

Project Name	Duration & Value	Client Reference	Project Summary
ERRS Region 8	4/07 - 4/12 $54M 9/01 – 2/07 $30M	USEPA Region 8	➢ Prime Contractor to USEPA for task orders issued across Region 8 for remediation and emergency response cleanup
ERRS Region 7	9/07 – 9/12 $67M 8/02 - 8/07 $82M	USEPA Region 7	➢ Prime Contractor to USEPA for task orders issued across Region 7 for remediation and emergency response cleanup
ERRS Region 5	11/08 – 11/15 $101M	USEPA Region 5	➢ Prime Contractor to USEPA for task orders issued across Region 5 for remediation and emergency response cleanup
ERRS Region 4	9/07 - 9/14 $98M	USEPA Region 4	➢ Prime Contractor to USEPA for task orders issued across Region 4 for remediation and emergency response cleanup
ERRS Region 2	5/10 – 5/15 $121M	USEPA Region 2	➢ Prime Contractor to USEPA for task orders issued across Region 2 for remediation and emergency response cleanup
ERRS Region 1	9/08 – 9/15 $143M	USEPA Region 1	➢ Prime Contractor to USEPA for task orders issued across Region 1 for remediation and emergency response cleanup
ERRS Region 6	12/02 - 12/12 $9M	USEPA Region 6	➢ Team subcontractor to EQM to perform remediation and emergency response actions across the region
ERRS Region 5 (Mini)	9/02 - 3/08 $5M	USEPA Region 5	➢ Prime Contractor to USEPA for task orders issued across Region 5 for emergency response activities
ERRS Region 5	7/98 - 7/03 $15M	USEPA Region 5	➢ Team subcontractor to EQM. ER has been active on 70% of delivery orders issued
ERRS Region 9	10/01 - 10/06 $15M	USEPA Region 9	➢ Team subcontractor to PRI to perform remediation and emergency response actions across the Region
ERRS Region 7, Omaha Lead Site Specific	10/09 – 10/11 $18M	USEPA Region 7	➢ Prime contractor for removal of lead contaminated 2,000 residencies
State of Illinois	3/05 - 3/10 $15M	State of Illinois IEPA HW 5306	➢ Contractor for State of Illinois for orders issued across three state regions for emergency response services for hazardous materials
State of Illinois	5/05 - 5/10 $21M	State of Illinois IEPA HWA 6304	➢ Prime contractor for State of Illinois for Corrective Action Orders issued across the state for hazardous and non-hazardous waste sites
State of Missouri	9/07 – 8/12 $1.5M 6/02 - 8/07 $15M	State of MO Dept. of Natural Resources Hazardous Substance Cleanup and Disposal	➢ Prime contractor to State of Missouri for orders issued across the entire state for emergency response cleanup
USDOT/Volpe	4/08 – 12/12 $45M 7/04 - 1/08 $33M	US DOT, Volpe Center	➢ Prime contractor for environmental remediation services for Libby Montana asbestos project
USACE Rapid Response Program	9/03 - 9/09 $115M	USACE, Omaha District	➢ Team subcontractor to Shaw to perform on USEPA guided removals nationwide
USACE Rapid Response Program	2/05 – 2/09 $15M 8/01 - 8/04 $15M	USACE, Omaha District	➢ Team subcontractor to PRI. ER/PRI have performed on USEPA guided removals in Regions 6, 7, and 9
USACE Rapid Response Remedial Action Contract (PRAC)	11/00 - 11/03 $5M	USACE, Louisville District	➢ Team subcontractor to PRI. ER/PRI for actions in Illinois, Indiana and Wisconsin under the contract
Hurricanes Katrina and Rita New Orleans, Louisiana USEPA, Region 6	9/05 – 3/07 $40M	Environmental Quality Management Jack Greber, President 513-825-7500	➢ On-site within 48 hours ➢ ER provided staffing; 1 Senior Project Manager, 400 cleanup ➢ technicians, 3 Field Cost Accountants ➢ Assigned for removal and management of hazardous wastes deposited and transported during flood surge
Delaware River Crude Oil Spill Philadelphia, Pennsylvania The O'Brien's Group	12/04 – 4/05 $5M	The O'Brien's Group Dave Marsh 713-569-2060	➢ Provided crew of 70 for an oil pollution remediation for a 265,000 gallon crude oil spill into the Delaware River ➢ Performed all excavation work for removing contaminated shoreline rock and replacement of clean fill and rock ➢ Provided boats with licensed boat operators working directly with U.S. Coast Guard, federal and state officials
Davenport & Flagstaff Salt Lake City, Utah USEPA, Region 8	4/04 – 9/04 $1M	USEPA Region 8 Duc Nugyen, OSC 303-312-6509	➢ Implement residential lead soil removal and restoration cleanup involving numerous occupied homes ➢ Excavate lead impacted soils and placed clean backfill

Project Name	Duration & Value	Client Reference	Project Summary
Vermiculite Intermountain Salt Lake City, UT USEPA, Region 8	4/04 – 7/04 $1.0M	USEPA Region 8 Floyd Nichols, OSC 303-312-6983	➢ Implemented commercial interior asbestos abatement of Zonolite and restoration cleanup involving 2 active businesses
Vasquez Residential Denver, CO USACE Omaha District	10/03 – 6/06 $2.0M	Project Resources Inc. Frank Loscavio, President 858-505-1000	➢ Provide manpower, equipment and field supervision to prime contractor for removal and restoration services ➢ Excavate and transported lead soils from residential properties ➢ Restore properties, installed backfill, re-sod and landscaped
Le Mars Coal Gas Le Mars, Iowa USEPA, Region 7	9/03 - 6/04 $1.5M	USEPA Region7 Dan Garvey, OSC 913-551-7600	➢ Implemented removal of coal tar wastes within a residential area ➢ Excavated impacted soils and placed clean backfill ➢ Removed numerous tanks
Omaha Lead Daycare Centers Omaha, NE Joplin, MO USEPA, Region 7	9/03 – 4/04 $300K	USEPA Region 7 Eric Nold, OSC 913-551-7488	➢ Implemented residential lead soil removal and restoration cleanup involving numerous daycare facilities ➢ Excavated lead impacted soils and placed clean backfill
Prime Western Smelter Gas, KS USEPA, Region 7	8/03 – 8/05 $1.6M	USEPA Region 7 DeAndre Singletary, OSC 913-551-7491	➢ Implement residential lead soil removal and restoration cleanup involving numerous residential homes ➢ Excavate lead impacted soils and placed clean backfill
Camelot Cleaners Fargo, ND USEPA, Region 8	6/03 – Present $1.3M	USEPA Region 8 Joyce Ackerman, OSC 303-312-6822	➢ Innovative technology for the removal TCE contaminates within a residential area
Buzzard Bay Oil Spill Buzzard Bay, MA	5/03 – 7/03 $1.4M	Confidential Client	➢ On-site within 9 hours of request ➢ ER provided staffing; 12 Project Supervisors, 80 Cleanup Technicians, 2 Field Cost Accountants, and equipment ➢ 33,950 man hours worked, no injuries ➢ ER managed shore line cleanup and material handling
Charlie's Scrap Metal High Ridge, MO USEPA, Region 7	5/03 $225K	USEPA Region 7 Jim Silver, OSC 913-551-7922	➢ Emergency response to scrap yard fire ➢ Utilized on-site dirt to supply material to suffocate fire ➢ Excavated run-off contaminated water and soils produced from fire fighting efforts
Space Shuttle Recovery Eastern Texas USEPA, Region 6	2/03 – 5/03 $4.2M	Environmental Quality Management Jack Greber, President 513-825-7500	➢ On-site within 20 hours of request ➢ ER provided staffing; 1 Senior Project Manager, 120 Cleanup Technicians, 2 Field Cost Accountants ➢ 73,997 man hours worked ➢ ER managed 350 field staff, carried out search over 700,000 acres, packaged/managed hazmat as discovered
Munice Residential Mercury Muncie, IN USEPA, Region 5	2/03 – 5/03 $102K	USEPA Region 5 William Simes, OSC 312-886-3337	➢ Emergency response to interior residential spill approximately 25 lbs of mercury spread throughout the home including all sinks, drains and air moving duct work ➢ Decontaminated the home salvaging it from demolition
Western Scrap Gary, IN USEPA, Region 5	10/02 $20K	USEPA Region 5 Walter Neid, OSC 312-886-4466	➢ Emergency response to a tar and oil spill in a scrap yard ➢ Transported clay to construct a berm to protect adjacent wetlands and excavated tar from soil ➢ Staged a lined pad on-site
Madison County Mines Fredericktown, Missouri USEPA, Region 7	9/02 - Present $5M	USEPA Region 7 Heath Smith, OSC 913-551-7903	➢ Implement residential lead soil removal and restoration cleanup involving numerous occupied homes ➢ Excavate lead impacted soils and placed clean backfill
Omaha Lead Omaha, Nebraska USEPA, Region 7	9/02 - 5/05 $4.9M	USEPA Region 7 Eric Nold, OSC 913-551-7488	➢ Implemented residential lead soil removal and restoration cleanup involving numerous occupied homes ➢ Excavated lead impacted soils and placed clean backfill
Libby Asbestos Removal Libby, Montana USEPA, Region 8	7/02 - Present $7.5M	USEPA Region 8 Paul Peronard, OSC 303-312-6808 Jim Christiansen, RPM 303-312-6748	➢ Implement residential interior asbestos abatement of Zonolite and restoration cleanup involving 200+ homes/facilities ➢ Excavate impacted soils, placed clean backfill, and restoration of yards/driveways/parking facilities

Project Name	Duration & Value	Client Reference	Project Summary
Newton County Mine Tailings Joplin, MO USEPA, Region 7	10/01 – 2/02 $225K	USEPA Region 7 Ken Rapplean, OSC 913-551-7769	➢ Implemented residential lead soil removal and restoration cleanup involving 108 homes ➢ Excavated lead impacted soils, placed clean backfill, reconstructed driveways, established final grade and restored properties
East St. Louis County Residential Excavation East St. Louis, IL	9/01 – 9/02 $220K	USEPA Region 5 Kevin Turner, OSC 618-997-0115	➢ Implemented residential cleanups under four delivery orders
Resurrection Mining Service Contract Leadville, CO	8/01 – 8/02 $200K	Newmont Mining Corp. Joseph Pollara 303-837-5154	➢ Implemented tailings management program ➢ Stabilized California Gulch bank ➢ Restored wetlands
St. Francis County Residential Excavation Desloge, MO	7/01 – 8/03 $1M	The Doe Run Co. Dan Vornburg, VP, Environmental Affairs 314-933-3134	➢ Implemented residential lead soil removal and restoration at a PRP voluntary cleanup involving approximately 600 homes ➢ Generated site maps and detailed logs for each property ➢ Excavated lead impacted soils, placed clean backfill, reconstructed driveways, established final grade and restored properties
Apache Tailings Operable Unit 7; California Gulch Superfund Site Leadville, CO	5/01 – 10/01 $1.9M	ASARCO Bob Litle, Project Manager 303-296-5115	➢ Rerouted sanitary sewer ➢ Constructed 760 ft creek bypass ➢ Excavated, placed 40,000 cy of tailings and re-graded 110,000 cy of tailings ➢ Placed and capped 634,000 sf of synthetic drainage fabric, a geosynthetic clay liner, 70,000 cy cover soil, and vegetative layer
Harmony Lake Subsite Fredericktown, MO USEPA, Region 7	10/00 – 4/01 $1.9M	USEPA Region 7 Jim Silvers, OSC 314-587-9895	➢ Implemented residential lead soil removal and restoration cleanup involving 125 homes ➢ Excavated lead impacted soil, placed clean backfill, reconstructed driveways, established final grade and restored properties
Dead Creek Remediation Sauget, IL	8/00 – 6/02 Confidential	Maverick Construction John Fiore, Project Manager 508-721-2227	➢ Clearing and grubbing 17,000 feet of creek contaminated organic and inorganic wastes, dioxins and PCBs ➢ Installation of creek bypass system consisting of HDPE piping, sumps and pumps allowing for bypass of normal flow during project duration ➢ Excavation/solidification of 5,000 bcy of sediments from pond ➢ Excavation/stabilization of 70,000 bcy of contaminated sediments from creek ➢ Transportation to on-site repository
Nicor Mercury Cleanup Chicago, IL	8/00 – 12/00 $1.2M	SET Environmental Dave Devries, VP Environmental Services 847-537-9221	➢ Provided 55 managers and field staff to identify and clean interiors of over 600 residential properties contaminated by mercury
Penn-Maritime Oil Newport, RI	7/00 $95K	Clean Harbors, Inc. Brian Fay, Emergency Response Manager 781-849-1800	➢ Responded to an oil spill caused by a barge rupture ➢ Provided 25 technicians and equipment operators in the cleanup of 15,000 gallons of *Number 6* oil across 8 miles of Narragansett Bay
Don V. Davis St. Louis, MO USEPA, Region 7	5/00 – 9/00 $800K	USEPA Region 7 Jim Silver, OSC 314-587-9895	➢ Remediation of a contaminated paint manufacturing facility ➢ Removal of PCBs, VOCs, flammable liquids and solids and asbestos ➢ Transportation and disposal
ASARCO-Globeville Residential Excavation Denver, CO	4/00 – 8/02 $2.5M	ASARCO Globeville Plant Bob Litle, Project Manager 520-648-4548	➢ Performed remediation of 290 residential properties contaminated with lead materials across several locations ➢ Managed all work activity including obtaining property access, removal/restoration activities, depository construction and maintenance, personal air monitoring, closeout and reporting
Pepco Pipeline Rupture Waldorf, MD	4/00 – 5/00 $250K	Clean Harbors, Inc. Brain Fay, Emergency Response Manager 781-849-1800	➢ Responded to a 110,000 gallon pipeline rupture releasing *Number 6* oil into the Pawtucket River ➢ Provided managers, 30 personnel and oil spill equipment to remove oil contamination from 28 miles of coastline along the Chesapeake Bay
Marathon Pipeline Rupture Winchester, KY	2/00 $200K	Clean Harbors Brian Fay, Emergency Response Manager 781-849-1800	➢ Responded to a pipeline rupture that released 90,000 gallons of Number 6 oil into a small creek used as drinking water for pure bred horses and across pristine farmland ➢ Directed the efforts of 35 personnel involved in the containment and removal efforts and in the operation of equipment to remediate site

Project Name	Duration & Value	Client Reference	Project Summary
Malone Services TSDF Texas City, TX USEPA, Region 6	10/99 – 7/00 $307K	Environmental Quality Management Bill Creacy, PM 409-908-0360	➢ Provided field resources and equipment to remove wastes from abandoned deep will injection facility ➢ Performed waste handling and operation of deep well
Omaha Residential Lead Omaha, NE USACE Omaha District	9/99 – 2/02 $2.9M	Project Resources Inc. Frank Loscavio, President 858-505-1000	➢ Provided manpower, equipment and field supervision to prime contractor for removal and restoration services ➢ Excavated and transported lead soils from residential properties ➢ Restored properties, installed backfill, re-sodded and landscaped
Site Q Drum Excavation Sauget, IL USEPA, Region 5	9/99 – 2/00 $2.0M	USEPA Region 5 Kevin Turner, OSC 618-997-0115	➢ Provided project management, field resources and equipment to locate and excavate 3,271 buried drums located in the Mississippi River floodplain ➢ Bulked wastes including metals, PCBs and solvents into compatible waste streams for off-site disposal ➢ Excavated 17,500 tons of lead and PCB 'source' soils ➢ Stabilized soils via on-site treatment to reduce lead levels, and disposed of as either 'Special' or Hazardous pending PCB concentrations ➢ Transported 6,500 tons of waste by rail saving $20.00 per ton ➢ ER's T&D approach saved $530,000+ over conventional T&D
Omaha Residential Lead Omaha, NE	8/99 – 5/00 11/01 – 3/02 $2.9M	USACE Rapid Response Program Mark Herse Contracting Officer 402-293-2525	➢ Provided all field resources and supervision for excavation and restoration of lead impacted daycares and schools
South Central Oil Terminal Decon/Demo Pana, IL USEPA, Region 5	8/99 – 3/00 $3.5M	USEPA Region 5 Kevin Turner, OSC 618-997-0115	➢ Provided project management, field resources and equipment required for structural decontamination and demolition of an abandoned refinery ➢ Managed asbestos removal, structural decontamination and removal of 55 above ground tanks ranging in size form 200,000 to 2.5 million gallons ➢ Excavated and dispose of 10,000 tons of oily water and sludge ➢ On-site treatment of 400,000 gallons of contaminated water
Fenton Creek Dump Fenton, MO USEPA, Region 7	7/99 – 12/99 $1.7M	USEPA Region7 Joe Davis, OSC 913-551-7909	➢ Waste removal at a former dumpsite used by an automobile manufacturer to dispose of spent paint waste materials ➢ Removed 26,000 tons of material contaminated with heavy metals, organics, and PCBs ➢ Treated 24,000 tons to a dosage rate of 1.5%, 2.5% less than project estimate ➢ Completed task order under budget
Herculaneum Residential Lead Soil Removal Herculaneum, MO	6/99 – 8/01 $250K	The Doe Run Co. Dan Vornberg, Vice President, Environmental Affairs 314-933-3134	➢ Implement residential lead soil removal and restoration services at this PRP voluntary cleanup ➢ Generate site maps and detailed logs for each property ➢ Excavate and removed 12,000 cubic yards of lead soils ➢ Place 12,000 cubic yards of clean backfill, along with 400 tons of rock at affected residential properties, driveways and parking areas
Confidential Client St. Louis, MO	12/98 – 12/99	Confidential	➢ Provided oil containment and recovery services as required to meet US Coast Guard requirements
FedEx Freight Emergency Response Contract	9/98 – Present	FedEx Freight Jason Taylor 501-376-7248	➢ Provide emergency hazardous material response services as needed for over the road and terminal based spills and releases throughout the Midwest
Tara-Corp NPL Site Residential Lead Removal Granite City, IL	9/98 – 1/00 $1.8M	ENTACT Inc. Tim Healy, Project Manager 618-876-7216	➢ Managed residential lead soil removal and restoration at this PRP lead cleanup ➢ Excavated and transported over 175,000 cubic yards of lead soils to on-site repository pending disposal ➢ Installed clean backfill over excavated areas, graded properties, installed fencing and retaining walls
2808 40th Street Minneapolis, MN	8/98 – 10/98 $11.4K	Environmental Quality Management John Mullane, Operations Manager 513-825-7500	➢ Responded to an emergency incident at a site containing cyanide waste ➢ Characterized and lab-packed cyanide wastes ➢ Arranged for transportation and disposal
Ross Mercury Spill Spooner, WI	8/98 $1.6K	Environmental Quality Management John Mullane, Operations Manager 513-825-7500	➢ Emergency response to complete the decontamination of a residence contaminated with mercury ➢ Removed non-structural components, captured metallic mercury and excavated contaminated soils

Project Name	Duration & Value	Client Reference	Project Summary
Cura Emergency Services, L.C.	7/98 – Present	Cura Emergency Services, L.C. Chris Leney 972-488-2222	➢ Provide emergency hazardous material response services as needed for spill coordination company
Dillman Oil OPA Site *Stoy, IL*	7/98 – 11/98 $70.9K	Environmental Quality Management Bill Jaekal, CHMM, Project Manager 513-825-7500	➢ Provided field services to complete the decontamination and demolition of an abandoned oil storage facility ➢ Removed trees and performed grubbing across the site ➢ Demolished 3(each) 200,000 gallon storage tanks ➢ Excavated and solidified 25,000 tons of petroleum soils and sludge
EWS Cole City, IL	7/98 $2.9K	Environmental Quality Management John Mullane, Operations Manager 513-825-7500	➢ Responded with personnel and equipment to an abandoned waste management facility containing tankers, trailers, drums and storage tanks ➢ Stabilized and secured site ➢ Inspected and over packed leaking drums ➢ Samples various waste streams, characterized and segregated waste
UniRoyal Facility Mishawaka, IN	5/98 – 9/98 $274K	Environmental Quality Management Jeff Rhinefield, Project Manager 513-825-7500	➢ Provided supervisors, crews, and equipment for the asbestos and PCB removal at a manufacturing facility ➢ Excavated and stabilized 10,000 tons of contaminated organic and PCB sludge ➢ Removed, containerized and disposed of 2,000 gallons of mixed solvents ➢ Removed and disposed of 40,000 linear feet of asbestos coated piping ➢ Removed 2, USTs and 2 ASTs
Carson City Refinery Demolition Carson City, MI	3/98 – 9/98 $1.8M	Environmental Quality Management Eric Bowman, CHMM, Project Manager 513-825-7500 USEPA Region 5 Pete Guria, OSC 312-353-1909	➢ Provided field response services to decontaminate and demolish an abandoned refinery ➢ Removed, solidified and disposed of 100,000 gallons of tank bottoms and 250,000 gallons of tank liquids ➢ Decontaminated and removed 250 ASTs ➢ Excavated and solidified 17,000 tons of soils and treated 4,000,000 gallons of wastewater ➢ Performed asbestos abatement and demolition of two cracking towers and 7,000 feet of ancillary piping
Chicago Methyl Parathion Removal Chicago, IL USEPA, Region 5	3/98 $50K	Environmental Quality Management Mark Douglas, Project Manager 708-891-5094	➢ Provided routine property relocation and structural decontamination services at homes sprayed with methyl parathion ➢ Removed structural and non-structural components and porous materials including carpets and wallboard
Fort Rucker UST Program Ft. Rucker, AL	2/98 – 6/98 $30K	Project Resources, Inc. Frank Loscavio, President 858-505-1000	➢ Provided project management, field resources and equipment to support UST removal and installation
Confidential Client Oil Spill Wood River, IL	1/98 $103K	Clean Harbors, Inc. Kent Bartley 773-646-5111	➢ Provided 24 hour/day response team ➢ Captured and recovered diesel fuel spilled into the Mississippi River at a refinery loading facility ➢ Mobilized equipment and personnel within six hours
American Rail Inc. **Carter Carburetor** St. Louis, MO	9/97 – 12/97 $330K	Shannon and Wilson Inc. Murray Meierhoff, CHMM, Project Manager 314-872-8170	➢ Managed the decontamination and demolition of a 3-story facility contaminated with PCBs ➢ Demolished and disposed of 2,000 tons of waste and contaminated debris
Le Mars Drive Dioxin Site Ellisville, MO Missouri Dioxin Contract	9/97 – 12/97 $200K	USEPA Region 7 Larry Stafford, PO 913-551-7394	➢ Directed excavation and storage of 1,200 tons of Dioxin contaminated soil ➢ Constructed a 20 mil HDPE cap over stockpile
Lakeside Refinery Demolition Kalamazoo, MI USEPA, Region 5	9/97 $6.3M	USEPA Region 5 Tom Basso, OSC Karen Vendle, OSC 312-353-1909	➢ Managed structural decontamination/demolition of a refinery contaminated with OPA, CERCLA and asbestos wastes ➢ Removed, pumped and stored 3,200 tons of oily water and sludge in 48, 20,000 gallon Frac tanks ➢ Treated 1.3 million gallons of contaminated waste water, removed and recycled 374,000 gallons of sludge and 212,000 gallons of liquids ➢ Excavated and stabilized 2,600 tons of contaminated soils

Project Name	Duration & Value	Client Reference	Project Summary
Eastern Missouri Dioxin Site Remediation St. Louis, MO USEPA, Region 7	9/96 – 4/97 $3M	USEPA Region 7 Larry Stafford, PO 913-551-7394	➢ Performed material handling of 20,000 tons of Dioxin soils previously stored in bulk life bags ➢ Managed transportation of 30,000 tons from 10 different sites to Times Beach, Missouri for incineration
Bliss Ellisville Buried Drum/ Dioxin Soils Excavation Ellisville, MO USEPA ERCS Zone 4A	11/95 – 11/96 $6.5M	USEPA Region 7 Ron McCutheon, OSC (Retired) Larry Stafford, PO 913-551-7394	➢ Supervised the excavation and treatment of 25,000 tons of soils and transported to Times Beach, MO ➢ Removed 500 buried drums to paint wastes and solvents ➢ Constructed two negative air pressure drum staging areas with vapor extraction units ➢ Conducted air monitoring
Galena and Joplin Lead Galena, KS Joplin, MO	2/95 – 11/95 $4.8M	USEPA Region 7 Dave Williams, OSC 913-551-7625	➢ Excavated 68,000 cubic yards of lead contaminated soils from 360 residential properties ➢ Performed site restoration including backfilling excavated areas with clean fill, grading and re-sodding ➢ Completed 335 homes in a 5 month period as required to meet customers' established time frame
Turner Seed Company Burlington, IA USEPA, Region 7	2/95 $600K	USEPA Region 7 Larry Stafford, PO 913-551-7394	➢ Decontaminated a warehouse impacted by pesticides and herbicides ➢ Provided sampling and analysis ➢ Lab packed 67 drums of containerized pesticides and herbicides ➢ Sealed warehouse interior, transported and disposed of materials
East Texas Motor Freight St. Louis, MO USEPA, Region 7	10/94 – 12/94 $800K	USEPA Region 7 Larry Stafford, PO 913-551-7394	➢ Excavated, containerized and staged for storage of 8,000 tons of dioxin-contaminated soil ➢ Removed soils from residential, commercial, city and railroad right-of-ways
Mid America Oil Refinery Chanute, KS USEPA, Region 7	8/94 – 10/94 $975K	USEPA Region 7 Janice Kroone, OSC 913-551-7005	➢ Managed cleanup of abandoned crude oil refinery ➢ Staged, sampled, analyzed, and field screened 459 drums and containers ➢ Decontaminated 3 structures and performed asbestos abatement ➢ Solidified, transported and disposed of 300 tons of sludge
USEPA 1993 Missouri Flood Cleanup Response Multiple Delivery Orders, Statewide	7-93 – 5/95 $2.3M	USEPA Region 7 James McDonald, OSC 913-551-7767	➢ Retrieved, categorized, stored and disposed of 8,982 containers, 6,118 drums, 900 propane tanks, and 531 aboveground storage tanks, containing solvents, paints, herbicides, pesticides, and hydrocarbons spread across 350 miles of Missouri River flood plain
M.K. Ferguson **Low Level Radiation Wastewater Contract** Weldon Springs, MO	5/91 – 8/94 $3.2M	M.K. Ferguson Bill Bryant, Contracts Manager 314-441-8086	➢ Supervised and operated three wastewater treatment facilities supporting the Weldon Spring DOE site in St. Louis, Missouri ➢ Managed 36 wastewater treatment operators working around the clock

PROVIDING SERVICES NATIONWIDE

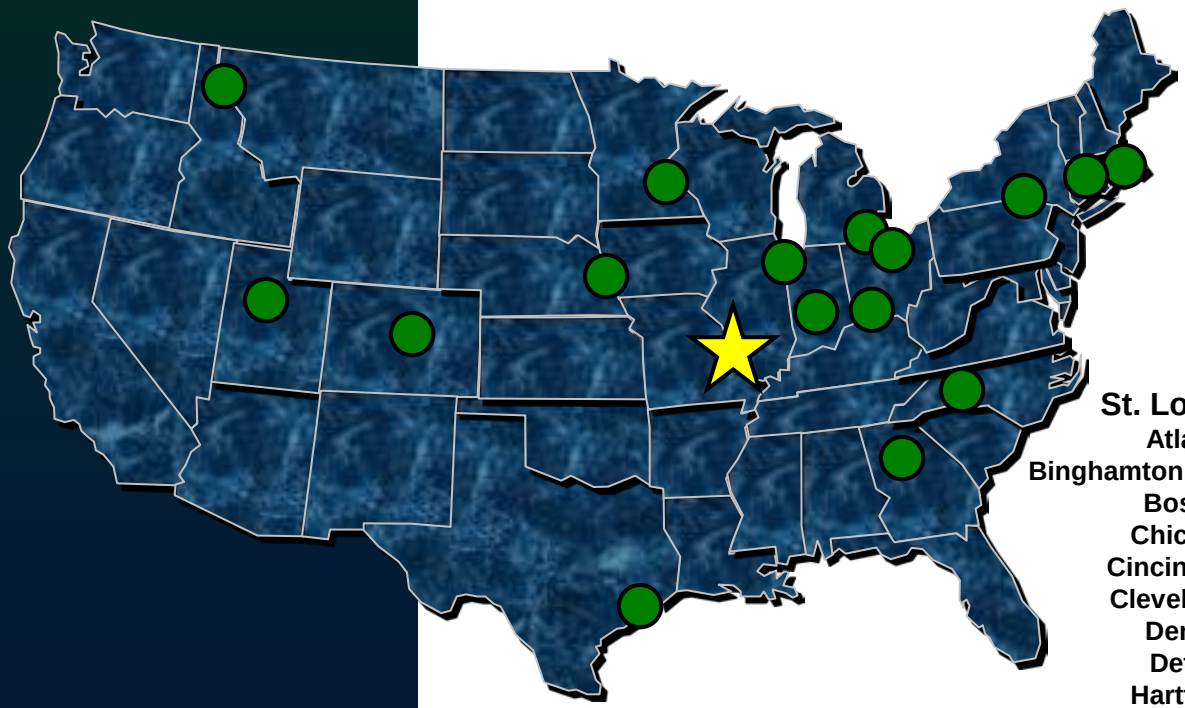
Environmental Restoration LLC has response and remediation project experience in 32 states and can provide services nationwide from our 17 office locations

We maintain offices across the nation providing our customers with easy access to technical and operational personnel and equipment required to respond to any environmental situation.

Our regional personnel are experienced in developing and implementing solutions to meet our clients' needs. ER staff provides regulatory knowledge and maintains understanding of local requirements, technical and business considerations necessary to complete environmental work.

We have the capability to respond efficiently and cost effectively respond to our customers' needs nationwide from our 17 offices.

ER office locations are highlighted below:



St. Louis
Atlanta
Binghamton, NY
Boston
Chicago
Cincinnati
Cleveland
Denver
Detroit
Hartford
Houston
Indianapolis
Libby, MT
Omaha
Raleigh
Salt Lake City
St. Paul

PERSONNEL

Our Project Managers are proficient at scheduling, budgeting and cost management

Project Superintendents average 20 years experience over a broad range of projects including excavation, mine site remediation, structural decontamination and demolition, residential removal and spill response

Our core field staff average 20 years of experience in all aspects of HTRW projects

Environmental Restoration's principals and field management experience dates back to the infancy of the environmental industry. Our project personnel average twenty years of experience conducting removal and remedial actions across the Midwest, Great Lakes, Rocky Mountains, Western and Southeastern regions of the country for a variety of federal, state and private sector clients.

Our project managers have demonstrated capabilities in supervising and coordinating complex remediation and construction projects. They provide the depth and expertise in disciplines ranging from scientists and geologists to construction managers. ER staff directs client negotiations, interface with regulators, manage subcontractors, control costs and schedule, and submit reports. They are supported by a full complement of foremen, laborers, technicians, and equipment operators with skill sets vital to execute waste handling, decontamination, demolition, excavation and site restoration.

Our personnel are extensively trained. All personnel have 40 Hour OSHA certification, 8 Hour Refresher, and construction safety training to ensure safe handling procedures, personal protection, equipment usage and Health and Safety procedures. Site Managers complete an 8 Hour Supervisor Training Course in Management of Hazardous Waste Sites. Our Field Management staff and Project Superintendents maintain Competent Person Certification in excavation, trenching, confined space entry and fall protection and have DOT HM-126F/181 Training. Project Foremen and selected field staff maintain certifications in lead, asbestos and radiation handling as required. In 2006, ER field personnel completed ICS Training Levels 100 and 200 as well as NIMS Levels 700 and 800. Additionally, Management personnel and Supervisors completed ICS Level 300 and 400 training.

Individual highlights of our Management, Superintendent and Foremen training as well as our project experience are shown on the following table:

Facility Audit Information Package

American Industrial Services

8500 Georgetown Road

Indianapolis, IN 46268

2013

1. Facility Identification

Name:	American Industrial Services, LLC
Address:	8500 Georgetown Road Indianapolis, IN 46268
Phone Number:	317-871-4090
Fax Number:	317-871-4094

2. Company Organization

American Industrial Services, LLC, is a wholly owned subsidiary of American Environmental Corporation, located at the same address above. American Industrial Services, LLC (AIS) has been in operation since 1999 and provides waste management consulting services as well as transportation of non-hazardous waste, hazardous materials and hazardous waste from client site locations to disposal facilities. AIS is a 10-day transfer facility.

The company organization includes the following management team:

American Environmental Corporation

President	Jacob Smith
Controller	Steve Walawender

American Industrial Services

Vice President	Greg Spears
Inside Sales	Krista Duncan
Safety Manager	Kevin Hutchens

3. Permits and Authorizations

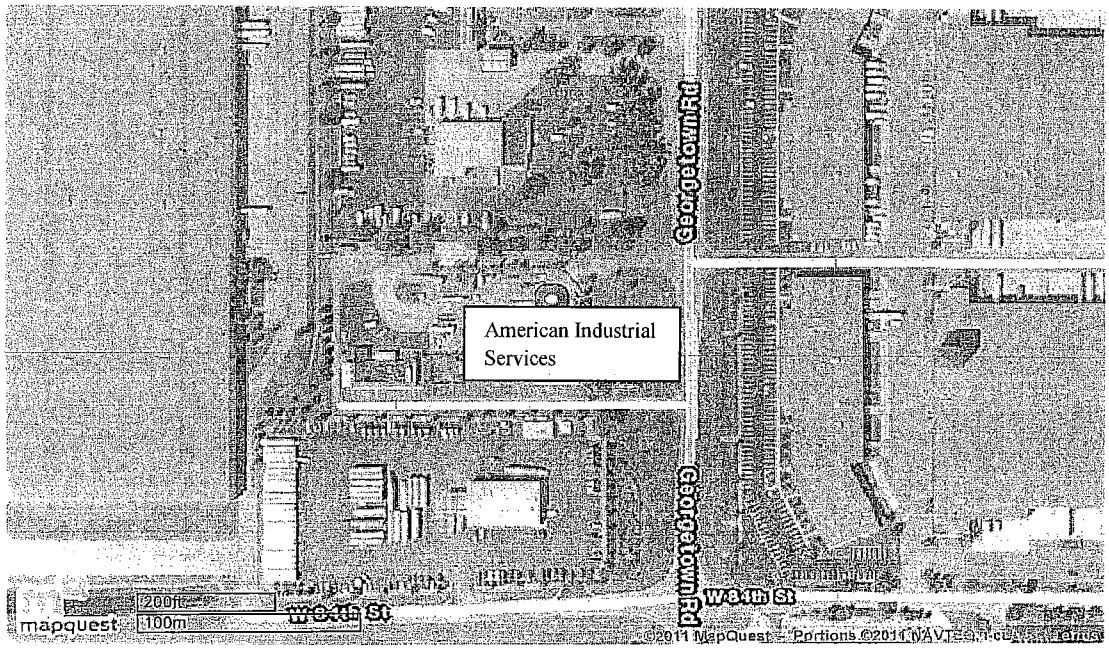
Transport of hazardous materials including hazardous waste requires specific permits and credentials from Federal and State-specific agencies. The permits and authorizations that have been obtained for AIS are included in the table below:

State and Federal Permits and Authorization Table

Permit/Authorization/Registration:	*Number:*	*Issued by:*
Hazardous Materials Certificate of Registration	050212 550 075UW	US DOT
DOT Number	533157	US DOT
EPA ID Number	INR000017350	Indiana Department of Environmental Management
Uniform HazMat Transportation Procedures, Uniform Program Credential	UPW-0533157-OH	Public Utilities Commission of Ohio (transport in Michigan also)
Special Waste Hauling Permit	#5151	Illinois Environmental Protection Agency
Certificate of Registration for Hazardous Waste Management Activity	None	Kentucky Department for Environmental Protection
Uniform Program for Liquid Industrial Waste Transportation Credential	LIW 0533157 MI	Michigan Department of Environmental Quality
Registered Collector – Electronic Waste	None	Indiana Department of Environmental Management

4. Facility Description:

AIS is located on approximately 5 acres in Indianapolis, IN. The facility is located in an area surrounded by light industrial and commercial activities. The facility is bounded on the north by Penske Truck Rental, on the east by Georgetown Road, on the south by Marten Transport and on the west by Lexington Pharmaceuticals. The facility includes an office and warehouse area. The warehouse storage area is fenced and access to this part of the site is limited. See the attached map of the facility.



AIS has written a hazardous materials security plan in accordance with the Department of Transportation requirements. There is a 24-hour security and fire/heat detection system along with cameras.

5. Training, Safety and Response Plans

All AIS employees are given training for jobsite safety and general operations in the warehouse. Employee safety and health is a primary concern for AIS. All needed personal protective equipment is provided to prevent overexposure to hazardous materials or to prevent injuries from general safety hazards.

There is specialized training given to each employee regarding DOT hazardous materials shipping and transportation requirements; and, DOT driving training specific to vacuum tanker or box trucks. In addition to the required DOT hazardous materials regulation training, our employees also receive OSHA Hazwoper 40 hour training, drum handling, defensive driving, American Petroleum Institute – WorkSafe card safety training and training regarding client specific procedures and safety requirements.

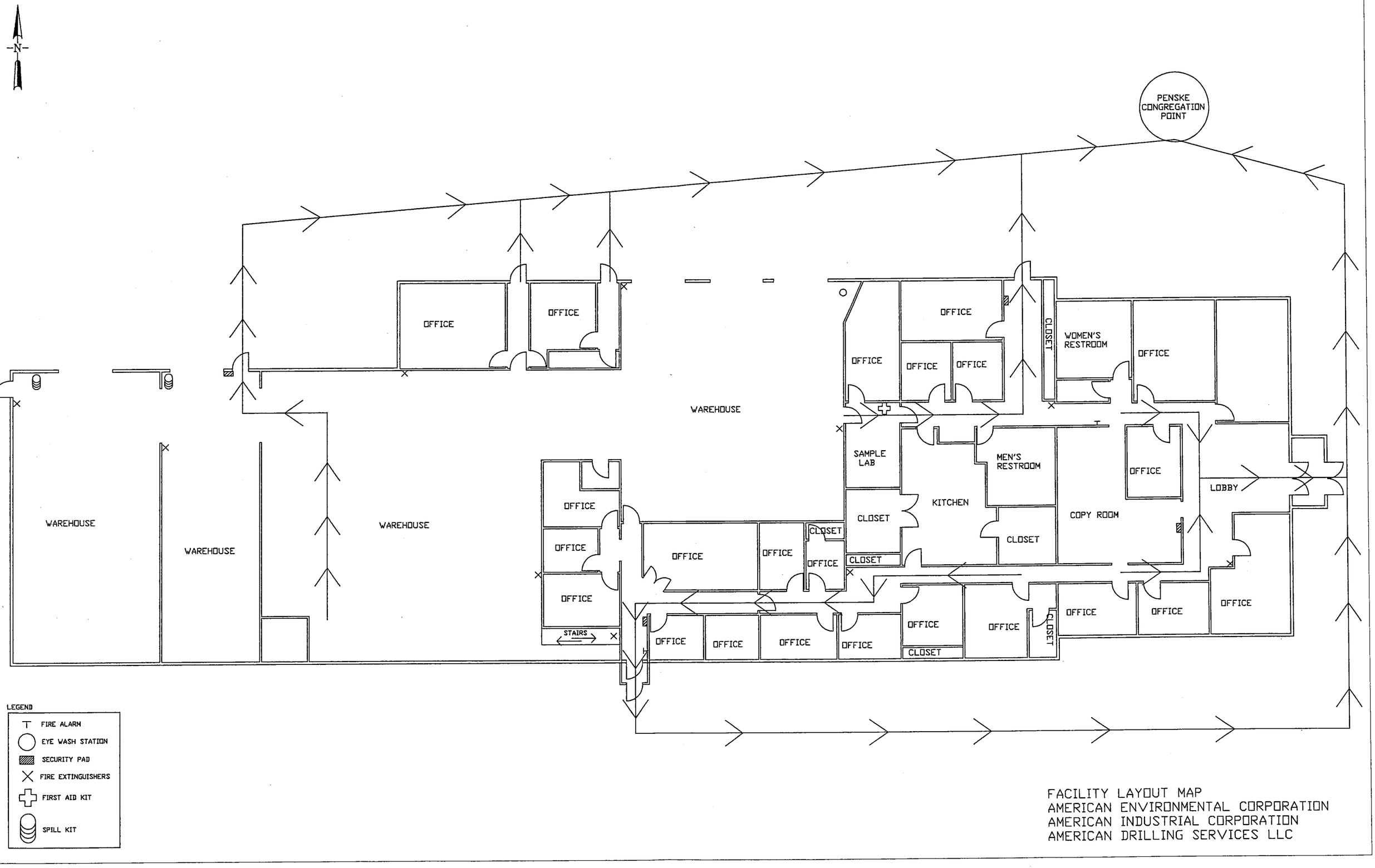
Occasionally, clients will require background checks or other specific security or safety certification. AIS will provide all needed information to ensure the client requirements are met for the anticipated work activities.

All AIS drivers have had required DOT physicals and have current commercial driver's licenses with appropriate hazmat endorsements and threat assessments completed. Required DOT pre-employment and random drug and alcohol testing is performed.

There is a written spill response plan for the warehouse area where drums are stored. Monthly inspections of the fire extinguishers and general housekeeping for this area are also conducted.

6. Insurance

AIS maintains general liability, automobile and workers' compensation insurance coverage. A copy of the insurance coverage is attached.



FACILITY LAYOUT MAP
AMERICAN ENVIRONMENTAL CORPORATION
AMERICAN INDUSTRIAL CORPORATION
AMERICAN DRILLING SERVICES LLC

AMEEN-1 OP ID: CZ

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 03/05/13

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Tobias Insurance Group 9247 N. Meridian St. Ste. 300 Indianapolis, IN 46260 Albert W. Moss	317-844-7759 317-844-9910	CONTACT NAME: Cliff Buchman PHONE (A/C, No, Ext): 317-844-7759 FAX (A/C, No): 317-815-6036 E-MAIL ADDRESS: cbuchman@tobias.com	
		INSURER(S) AFFORDING COVERAGE	NAIC #
		INSURER A: Zurich American Ins. Company	
INSURED American Environmental Corp. American Drilling Services LLC American Industrial Services, LLC 8500 Georgetown Road Indianapolis, IN 46268		INSURER B: Torus National Insurance	25496
		INSURER C: Catlin Specialty Insurance Co	15989
		INSURER D:	
		INSURER E:	
		INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC			CLO582152300(13)	03/01/13	03/01/14	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 300,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
	AUTOMOBILE LIABILITY [X] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [X] HIRED AUTOS [X] NON-OWNED AUTOS			BAP582152500(13)	03/01/13	03/01/14	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
B	[X] UMBRELLA LIAB [X] OCCUR EXCESS LIAB [ ] CLAIMS-MADE DED [X] RETENTION $ 10,000			44475C130ALI(13)	03/01/13	03/01/14	EACH OCCURRENCE AGGREGATE	$ 5,000,000 $ 5,000,000
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N [N] (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		SC582152300(13)	03/01/13	03/01/14	[X] WC STATU-TORY LIMITS [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
C	*CONTRACTORS POLL/ PROFESSIONAL LIAB.			CPV673979034(13) PROF. "CLAIMS MADE"	03/01/13	03/01/14	PER CLAIM AGGREGATE	5,000,000 5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

*COVERAGE B - PROFESSIONAL LIABILITY. COVERAGE C - CONTRACTORS POLLUTION LIABILITY, INCLUDING TRANSPORTATION LIABILITY. THIS CERTIFICATE IS A SAMPLE ONLY AND IS INTENDED FOR USE IN BIDDING/MARKETING PURPOSES ONLY. IN THE EVENT THAT OUR INSURED IS AWARDED A CONTRACT, A NEW CERTIFICATE OF INSURANCE WILL FOLLOW.

CERTIFICATE HOLDER

SAMPLEC

SAMPLE CERTIFICATE OF INSURANCE

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

IF YOU ARE THE RECIPIENT OF THIS CERTIFICATE:
ANY WORDING TO PROVIDE ADDITIONAL INSURED COVERAGE, PROVIDE COVERAGE ON A PRIMARY AND NON-CONTRIBUTORY BASIS, OR PROVIDE A WAIVER OF SUBROGATION APPLIES ONLY WHERE REQUIRED BY WRITTEN CONTRACT OR AGREEMENT.

CONTRACTUAL LIABILITY COVERAGE IS ONLY PROVIDED TO THE EXTENT SET FORTH IN THE POLICIES AND MAY NOT COVER ALL LIABILITY ASSUMED BY THE NAMED INSURED UNDER THE CONTRACT.

IF YOU ARE THE REQUESTOR OF THIS CERTIFICATE OF INSURANCE:
Tobias Insurance Group has, upon your request, issued the attached Certificate of Insurance.

If you have not already done so, we highly recommend that you provide Tobias Insurance Group with a copy of the insurance and indemnification provisions of the contract pertaining to the Certificate of Insurance request so that we may properly ascertain whether the referenced insurance policies address the limits of insurance, terms and types of coverage required by the contract.

While most Certificates of Insurance can be issued at no cost, the contract may require the purchase of additional insurance coverage that could be subject to an additional premium charge. In some instances, the coverage identified in the contract may be outside the underwriting guidelines of the insurance carrier and cannot be obtained.

Any contract review performed by Tobias Insurance Group should not be construed as the rendering of legal advice or a legal opinion concerning any portion of the contract.

Tobias Insurance Group has not endeavored to identify all potential liability issues that might arise under this contract. This review is provided for information purposes only and should not be relied upon by third parties.

Any description of insurance coverage is subject to the terms, conditions, exclusions and other provisions of the policies and any applicable regulations, rating rules or plans. This Certificate of Insurance does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION

HAZARDOUS MATERIALS CERTIFICATE OF REGISTRATION FOR REGISTRATION YEAR(S) 2012-2015

Registrant: AMERICAN ENVIRONMENTAL CORP
Attn: KRISTA DUNCAN
8500 GEORGETOWN ROAD
INDIANAPOLIS, IN 46268

This certifies that the registrant is registered with the U.S. Department of Transportation as required by 49 CFR Part 107, Subpart G.

This certificate is issued under the authority of 49 U.S.C. 5108. It is unlawful to alter or falsify this document.

Reg. No: 050212 550 075UW **Issued: 05/02/2012** **Expires: 06/30/2015**

HM Company ID: 042657

Record Keeping Requirements for the Registration Program

The following must be maintained at the principal place of business for a period of three years from the date of issuance of this Certificate of Registration:

(1) A copy of the registration statement filed with PHMSA; and
(2) This Certificate of Registration

Each person subject to the registration requirement must furnish that person's Certificate of Registration (or a copy) and all other records and information pertaining to the information contained in the registration statement to an authorized representative or special agent of the U. S. Department of Transportation upon request.

Each motor carrier (private or for-hire) and each vessel operator subject to the registration requirement must keep a copy of the current Certificate of Registration or another document bearing the registration number identified as the "U.S. DOT Hazmat Reg. No." in each truck and truck tractor or vessel (trailers and semi-trailers not included) used to transport hazardous materials subject to the registration requirement. The Certificate of Registration or document bearing the registration number must be made available, upon request, to enforcement personnel.

For information, contact the Hazardous Materials Registration Manager, PHH-52, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, SE, Washington, DC 20590, telephone (202) 366-4109.

PM-31
(Rev. 1/95)

SERVICE DATE
May 17, 2000

DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

PERMIT

MC 379641 P

AMERICAN ENVIRONMENTAL CORPORATION
D/B/A AMERICAN INDUSTRIAL SERVICES
INIDANAPOLIS, IN, US

This Permit is evidence of the carrier's authority to engage in transportation as a contract carrier of property (except household goods) by motor vehicle in interstate or foreign commerce.

This authority will be effective as long as the carrier maintains compliance with the requirements pertaining to insurance coverage for the protection of the public (49 CFR 387) and the designation of agents upon whom process may be served (49 CFR 366). Failure to maintain compliance will constitute sufficient grounds for revocation of this authority.

Service must be performed under a continuing agreement with one or more persons.

Terry Shelton, Acting Director
Office Data Analysis & Information Systems

NOTE: Willful and persistent noncompliance with applicable safety fitness regulations as evidenced by a DOT safety fitness rating of "Unsatisfactory" or by other indicators, could result in a proceeding requiring the holder of this certificate or permit to show cause why this authority should not be suspended or revoked.

Alliance for Uniform HazMat Transportation Procedures Uniform Program Credentials

AMERICAN ENVIRONMENTAL CORPORATION
AMERICAN INDUSTRIAL SERVICES
8500 GEORGETOWN RD
INDIANAPOLIS, IN 46268

ALLIANCE FOR UNIFORM HAZMAT TRANSPORTATION PROCEDURES

USDOT Census #	**00533157**	
MC Docket #	**00379641**	
EPA Transporter ID #	**INR000017350**	225266
Intrastate Motor Carrier #:	**N/A**	273704

Phone Number to call in case of a accident or emergency: (317) 339-1430 -- 24 Emergency HM Contact

Uniform Program ID:	**UPW-0533157-OH**
Certified By:	**Leonard Shenk**
Issuance Date:	**21-Aug-2012** Expiration Date: **01-Oct-2013**
Issuing Agency:	**PUBLIC UTILITIES COMMISSION OF OHIO**
Agency Telephone:	**(614) 466-3392**

THE PUBLIC UTILITIES COMMISSION OF OHIO

83613

Michigan Department of Environmental Quality

Uniform Program for Liquid Industrial Waste Transportation Credentials

KRISTA DUNCAN, JACOB SMITH
AMERICAN ENVIRONMENTAL CORP
8500 GEORGETOWN ROAD
INDIANAPOLIS, IN 46268

Telephone Number in case of accident or emergency: (317) 339-1430

National Uniform Program Credential Number: UPM0533157OH

Michigan LIW Uniform Program Identification Number: LIW0533157MI

Certified by: *Jeanette M. Noechel*

Registration Issued: 1/7/2013 Registration Expiration: 1/7/2014

Issuing Agency: **Department of Environmental Quality**

Agency Telephone Number: **(586)-753-3850 or (586)-753-3846**

EQP 5124 (REV 3/11)

KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
CERTIFICATE OF REGISTRATION
FOR HAZARDOUS WASTE MANAGEMENT ACTIVITY

ISSUED TO:

AMERICAN ENVIRONMENTAL CORPORATION
dba AMERICAN INDUSTRIAL SERVICES
8500 GEORGETOWN RD
INDIANAPOLIS IN 46268

LOCATED AT:

8500 GEORGETOWN ROAD
INDIANAPOLIS IN 46268

TYPE OF CERTIFICATE: NEW

The Division of Waste Management hereby issues the above-named installation a Certificate of Registration for the hazardous waste activity specified below. This Certificate is issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Conformance with all applicable laws and regulations is the responsibility of the registrant. All rights of inspection by representatives of the Division of Waste Management are reserved.

This Certificate supersedes all previous Certificates of Registration.

EPA ID NUMBER:	INR-000-017-350
AI NUMBER:	80781
STATE:	INDIANA
ISSUED:	AUGUST 2, 2006
EFFECTIVE:	JULY 12, 2006
EXPIRATION:	NONE
ACTIVITY:	HAZARDOUS WASTE AND WASTE OIL TRANSPORTER

April J. Webb, P.E., Manager
Hazardous Waste Branch

Malinda K. Mays, Environmental Technologist
Hazardous Waste Branch

Questions concerning this Certificate should be directed to Malinda Mays at (502) 564-6716, extension 237, or by e-mail to malinda.mays@ky.gov

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 10/31/99
GSA No. 0246-EPA-OT

Read the Section V, Line-by-Line Instructions for Completing EPA Form 8700-12 before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act)

Notification of Regulated Waste Activity

EPA United States Environmental Protection Agency

Date Received (For Official Use Only)

MAR 07 2000

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

[X] A. Initial Notification [ ] B. Subsequent Notification (Complete Item C)

C. Installation's EPA ID Number: INR000017350

II. Name of Installation (Include company and specific site name)

AMERICAN ENVIRONMENTAL CORP.

III. Location of Installation (Physical address not P.O. Box or Route Number)

Street: 8500 GEORGETOWN Rd.

Street (Continued):

City or Town: INDIANAPOLIS | State: IN | Zip Code: 46268-

County Code: 097 | County Name: MARION

IV. Installation Mailing Address (See Instructions)

Street or P.O. Box: 8500 GEORGETOWN Rd.

City or Town: INDIANAPOLIS | State: IN | Zip Code: 46268-

V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (Last): SPEARS | (First): GREGORY

Job Title: MGR INDUST. SERV | Phone Number (Area Code and Number): 317-871-4090

VI. Installation Contact Address (See Instructions)

A. Contact Address: Location [X] Mailing [X]

B. Street or P.O. Box: 8500 GEORGETOWN Rd.

City or Town: INDIANAPOLIS | State: IN | Zip Code: 46268-

VII. Ownership (See Instructions)

A. Name of Installation's Legal Owner: DONALD FISHER

Street, P.O. Box, or Route Number: 8500 GEORGETOWN Rd.

City or Town: INDIANAPOLIS | State: IN | Zip Code: 46268-

Phone Number (Area Code and Number): 317-871-4090 | B. Land Type: | C. Owner Type: | D. Change of Owner Indicator: Yes [ ] No [ ] | (Date Changed) Month Day Year

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 10/31/99
GSA No. 0246-EPA-OT

ID - For Official Use Only

T	N	R	0	2	0	1	7	3	5	0		

VIII. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to Instructions)*

A. Hazardous Waste Activity

1. Generator (See Instructions)
   - [ ] a. Greater than 1000 kg/mo (2,200 lbs.)
   - [ ] b. 100 to 1000 kg/mo (220-2,200 lbs.)
   - [ ] c. Less than 100 kg/mo (220 lbs.)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - [ ] a. For own waste only
   - [X] b. For commercial purposes

Mode of Transportation
- [ ] 1. Air
- [ ] 2. Rail
- [X] 3. Highway
- [ ] 4. Water
- [ ] 5. Other - specify

3. [ ] Treater, Storer, Disposer (at installation) Note: A permit is required for this activity, see Instructions
4. Hazardous Waste Fuel
   - [ ] a. Generator Marketing to Burner
   - [ ] b. Other Marketers
   - [ ] c. Boiler and/or Industrial Furnace
     - [ ] 1. Smelter Deferral
     - [ ] 2. Small Quantity Exemption

Indicate Type of Combustion Device(s)
- [ ] 1. Utility Boiler
- [ ] 2. Industrial Boiler
- [ ] 3. Industrial Furnace

5. [ ] Underground Injection Control

B. Used Oil Recycling Activities

1. Used Oil Recycling Marketer
   - [ ] a. Marketer Directs Shipment of Used Oil to Off-Specification Burner
   - [X] b. Marketer Who First Claims the Used Oil Meets the Specifications
2. Used Oil Burner - Indicate Type(s) of Combustion Device
   - [ ] a. Utility Boiler
   - [ ] b. Industrial Boiler
   - [ ] c. Industrial Furnace
3. Used Oil Transporter - Indicate Type(s) of Combustion Device(s)
   - a. Transporter
   - b. Transfer Facility
4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
   - [ ] a. Process
   - [ ] b. Re-refine

IX. Description of Regulated Wastes *(Use additional sheets if necessary)*

A. Characteristics of Nonlisted Hazardous Wastes. *(Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)*

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic	(List specific EPA hazardous waste number(s) for this Toxicity characteristic contaminant(s))			

B. Listed Hazardous Wastes. *(See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)*

1	2	3	4	5	6
7	**8**	**9**	**10**	**11**	**12**

C. Other Wastes. *(State or other wastes requiring a handler to have an I.D. number; See Instructions.)*

1	2	3	4	5	6

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

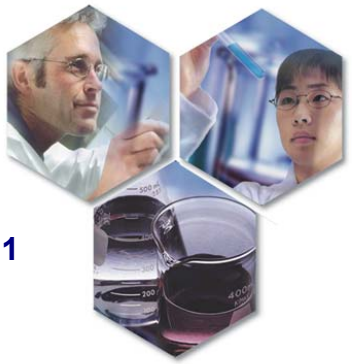
Signature	Name and Official Title *(Type or print)*	Date Signed
	Gregory L. Spears, Industrial Services Mgr.	2/29/2000

XI. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. *(See Section III of the booklet for addresses.)*

Pace Analytical®

The Right Chemistry, The Right Solution®



2011

Statement of Qualifications

Prepared by:

Pace Analytical Services, Inc.

1700 Elm Street
Minneapolis, MN 55414

Table of Contents

1. Company Introduction and History

Introduction to Pace Analytical

Pace Analytical Services, Inc. (Pace Analytical) was formed in 1995 through the purchase of seven laboratories from PACE Incorporated. Steve Vanderboom, President and CEO, and majority shareholder Rod Burwell, Pace Analytical's Chairman, formed the company after the shareholders of PACE Incorporated decided to sell all the laboratories and leave the environmental laboratory business. Mr. Burwell has provided the solid financial backing necessary in order for our laboratories to maintain a key leadership role in the analytical testing industry. His efforts include furnishing our facilities with state-of-the-art instrumentation and well-trained personnel.

Today, Pace Analytical is a privately held, full service sampling and analytical services firm operating a network of 15 laboratories and 9 service centers and Satellite Pickup Locations nationwide. All of our full-service laboratories are NELAC accredited. Our laboratories utilize U.S. EPA, ASTM, Standard Methods, NIOSH, and other accepted test procedures and methods, in accordance with federal and state regulations.

The company consists of six divisions: Analytical Services, Product and Material Testing, Field Services, Professional Services, Lab Equipment Sales and Service, and Life Sciences. Pace Analytical maintains a comprehensive list of certifications and methodologies throughout our laboratories. In addition to offering full service environmental analytical services, Pace Analytical provides the following specialty environmental testing services:

• **Dioxin / Furan** • **Biota** • **Air Toxics** • **Industrial Hygiene** • **Microbiological** • **Mixed Waste Characterization** • **Vapor Intrusion**	• **Asbestos** • **Aquatic Toxicity / Bioassay** • **Radiochemistry** • **PCB Congeners** • **On-Site Gas Phase FTIR** • **Field Sampling and Analysis**

Company Philosophy and Operating Principles

We are continually building Pace Analytical on a foundation of our **Mission Statement, Statement of Purpose** and our **Core Values** that guide our decisions each day. Strict adherence to our Core Values, as we model our capabilities and services to meet our customers' needs, will be the primary key to our future success.

- **Mission Statement**
  Working together to protect our environment and improve our health

- **Statement of Purpose**
  To meet the business needs of our customers for high quality, cost-effective, analytical measurements and services

- **Core Values**
  -Integrity
  -Know Our Customers
  -Flexible Response to Demand
  -Continuously Improve
  -Value Employees
  -Honor Commitments
  -Pursue Opportunities

Your Total Testing Resource

To become a strong business, Pace Analytical laboratories have consistently worked to increase efficiencies, hire and nurture strong analysts, maintain high quality services and utilize the most modern instrumentation and systems available. As a service provider, our bottom-line has been to assist our customers in meeting their business objectives. With this goal in mind, we work with our clients to develop sound solutions by utilizing our skills, technical experience and modern instrumentation. Today, Pace Analytical has evolved from "just" a network of environmental laboratories into a company of solution providers.

Undoubtedly, the ultimate benefit to our customers is the total integration of all our service offerings into one company – Pace Analytical. While some companies may provide some of the same services, our offerings are unmatched by anyone. Our complement of environmental testing services, outsourced chemistry services and experienced problem-solvers make Pace Analytical uniquely qualified to service all of your analytical requirements.

Investment in Applied Technologies

Pace Analytical's investment in applied technologies provides our clients with faster results, enhanced quality, accurate reporting packages and easy to interpret test results. An example of our commitment to technology is EPIC (Environmental Projects Information Control System), Pace Analytical's laboratory information management system, which is installed in each of our laboratory locations. EPIC is based on an Oracle database, which gives the system the flexibility to adapt to many of your specific project requirements. The system allows us to create standardized reports, methods, and invoices. Through uniform operations, we are able to understand and complete your request, regardless of which lab is performing your analyses.

Other investments in a new accounting system, analytical instrumentation and laboratory facilities have standardized our services from location to location and have provided our clients with the most up-to-date technologies available.

PacePort: Online Data Management

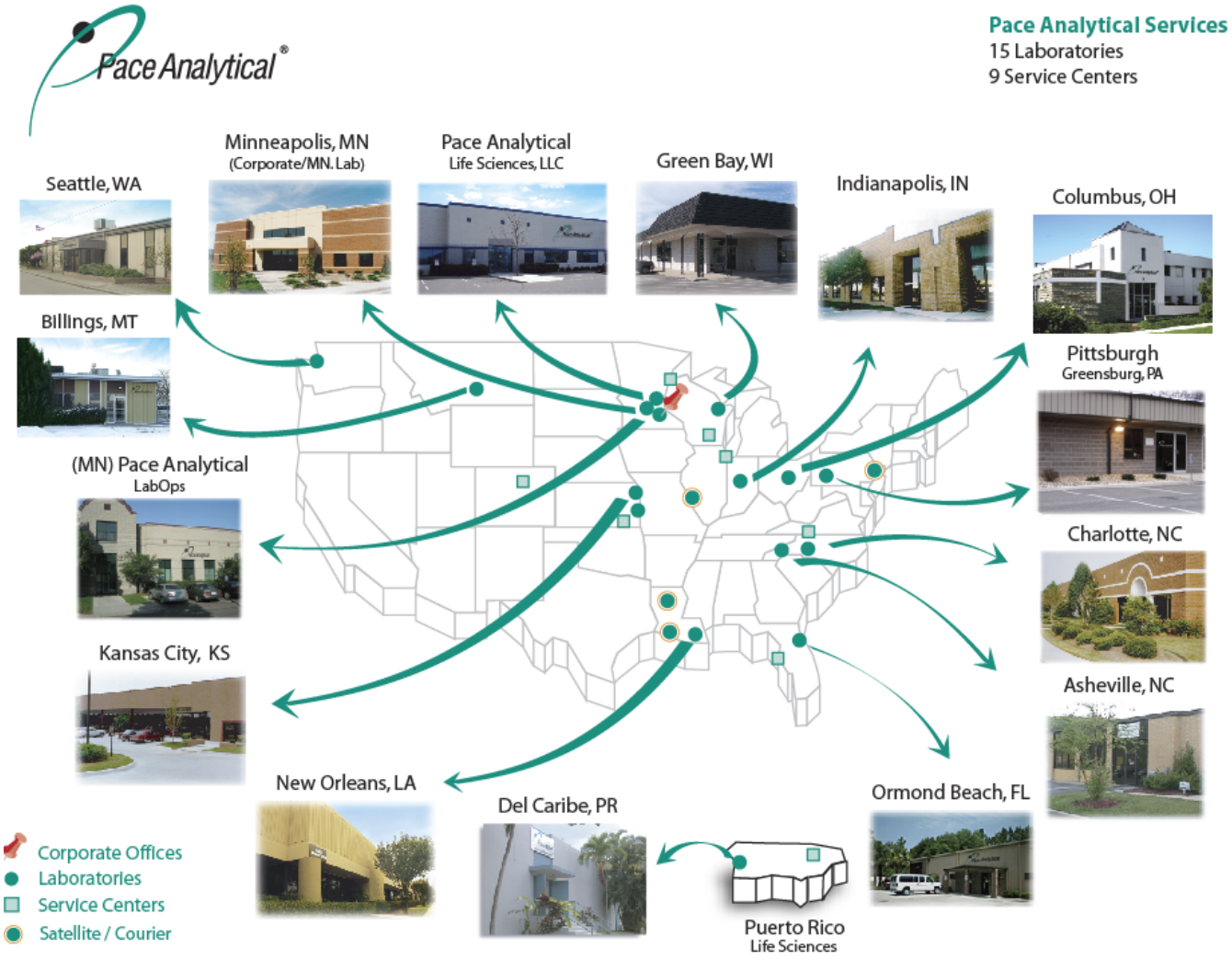
Pace Analytical provides convenient online data access and report management services to enable better communication and quicker access to your project-critical information. PacePort is a powerful web-based data management tool designed specifically for our customers. With up-to-the-minute access to project and test data from your computer, you have a quick and reliable resource for obtaining the information you need – *when you need it*.

Data You Can Count On

We have all heard the horror stories concerning invalid results and investigations into laboratories that are producing fraudulent data. This in itself is enough to prove that all laboratories are not created equal. Analytical methods contain highly complicated procedures that provide the opportunity for incompetent laboratories with poor management oversight to cut corners in data generation without the knowledge of the end user.

Pace Analytical ensures the quality of our data by employing a strong management team with experienced and qualified supervisors and analytical staff. Our corporate quality department has made considerable progress in standardizing our SOPs, internal auditing process, and providing quality oversight in each of our laboratories. All full service Pace Analytical laboratories are NELAP accredited.

2. Laboratory Locations



Asheville, NC

Address:
2225 Riverside Drive
Asheville, NC 28804

Tel: (828) 254-7176
Fax: (828) 252-4618

General Manager:
Jeff Graham

Sales Contact:
Jenny Snipes

Quality Manager:
Barry Johnson

Personnel Overview:
Number of Personnel 23
Technical Personnel 12
Support Personnel 11
BS/BA 16

- Well-equipped, 8,000 ft^2 laboratory, providing:
  - Full wet chemistry and metals analysis
  - Aquatic bioassay and product testing
- Sampling services include:
  - groundwater, wastewater and soil
- NPDES pre-treatment and monitoring analyses

Major Instrumentation:
2 Discrete Analyzer
2 Lachat Automated Analyzer
2 Mercury Analyzers
2 ICPs

History:
Originally part of Environmental Testing, Inc., the Asheville laboratory was acquired by PACE, Inc. in January 1990. The laboratory was included in the purchase which formed Pace Analytical in 1995. The laboratory specializes in Inorganic and Aquatic Toxicity testing – providing services to clients across the country. The Asheville laboratory works in conjunction with the Pace Analytical Charlotte laboratory to support organic testing requirements and provide lab services for much of the southeastern region.

Charlotte, NC

Address:
9800 Kincey Ave. Ste. 100
Huntersville, NC 28078

Tel: (704) 875-9092
Fax: (704) 875-9091

General Manager:
Jeff Graham

Sales Contact:
Jenny Snipes

Quality Manager:
Cheryl Johnson

Personnel Overview:
Number of Personnel 46
Technical Personnel 19
Support Personnel 23
BS/BA 18

- 12,000 ft^2, full service laboratory, providing:
  - full organic and inorganic analyses
  - air toxics
  - drinking water analyses
- Sampling services include:
  - low level Mercury
  - groundwater, wastewater, soil and air

Major Instrumentation:
9 Gas Chromatographs
8 GC/MS Systems

History:
The Charlotte laboratory operation was acquired by PACE, Incorporated from Environmental Testing, Inc. in January 1990. One year later, the operation was moved to a new 12,000 square foot laboratory and organic analysis capabilities were added. In 1995, the laboratory was included in the purchase that formed Pace Analytical Services, Inc. The operation has grown from a staff of 21 in 1995 to more than 40 professionals today. The lab offers full organic analytical services as well as field sampling. The Charlotte laboratory works in unison with the Pace Asheville laboratory to perform the bulk of their inorganic testing.

Columbus, OH

Address:
1233 Dublin Road
Columbus, OH 43215

Tel: (614) 486-5421
Fax: (614) 486-5478

General Manager:
Karl Anderson

Sales Contact:
Andy Koerner

Quality Manager:
Martha Innes

Personnel Overview:
Number of Personnel 16
Technical Personnel 12
Support Personnel 4
BS/BA 12

- Well-equipped, 10,200 ft^2 laboratory, providing:
  - organic and inorganic analyses
  - drinking water
  - Ohio VAP certification

Major Instrumentation:

5 GC Systems
5 GC/MS Systems
1 ICP
3 Discrete Analyzers
1 ICP/MS
1 AA Graphite Furnace
1 Mercury Analyzer

History:
The Columbus laboratory has been in operation since 1988. This laboratory was once part of the Zande organization which was acquired a couple of years ago by Stantec, and most recently the lab has been privately held under the name Alpha Omega Environmental Laboratory. Although there have been a series of ownership changes, the staff has remained consistent throughout. Pace Columbus provides full service environmental testing in addition to drinking water, waste water and landfill support throughout Ohio and surrounding states.

Ormond Beach, FL

Address:
8 East Tower Circle
Ormond Beach, FL

Tel: (386) 672-5668
Fax: (386) 674-4001

General Manager:
Bob Dempsey

Sales Contact:
Mike Valder

Quality Manager:
Myron Gunsalus, Jr.

Personnel Overview:

Number of Personnel 52
Technical Personnel 28
Support Personnel 24
BS/BA 38

- 11,000 ft², full service laboratory, providing:
  - SW846 organics and inorganics
  - Extensive Drinking Water capabilities
  - Support UST and Groundwater testing

- FL NELAC

Additional certifications throughout the US

Major Instrumentation:

10 Gas Chromatographs
7 GC/MS Systems
2 Mercury Analyzers
1 ICP
1 ICP/MS
2 Lachat Automated Analyzer
2 Ion Chromatograph
3 HPLC

History:
The ELAB (Florida) laboratory operation was purchased by Pace Analytical in 2008. ELAB began operations in 1974 under the name Envirolab and provided analytical support services to the clients of its parent environmental engineering company – Briley, Wild and Associates. The Pace Analytical Florida laboratory is headquartered in Ormond Beach, Florida with a service center located in Tampa. In addition to the environmental services it performs, the Florida Laboratory has become one of the premier drinking water testing facilities in the nation. The extensive list of environmental and drinking water certifications allows the company to perform testing in most areas of the United States and the Commonwealth of Puerto Rico.

Green Bay, WI

Address:
1241 Bellevue Street
Green Bay, WI 54302

Tel: (920) 469-2436
Fax: (920) 469-8827

General Manager:
Nils Melberg

Sales Contact:
Mark Hampton

Quality Manager:
Kate Grams

Personnel Overview:
Number of Personnel 71
Technical Personnel 45
Support Personnel 26
BS/BA 40

- 27,000 ft², full service laboratory, providing:
  - full organic and inorganic analyses
  - drinking water microbiology analysis

Major Instrumentation:

17 Gas Chromatographs
15 GC/MS Systems
1 ICP
1 ICP/MS
3 Low Level Mercury Analyzers
2 Mercury Analyzers
2 Ion Chromatographs
1 Lachat Automated Analyzers
2 LL Hg
1 Methyl Mercury Analyzers

History:
The former En Chem Green Bay laboratory was acquired by Pace Analytical Services, Inc. in October, 2004. The Green Bay facility specializes in quick turnaround UST samples along with routine analysis of organic and inorganic samples. The Pace Green Bay lab offers a wide variety of services, including CLP level packages and electronic deliverables. In addition to routine environmental matrices, the Green Bay laboratory has extensive experience in sediment work and biological tissue analysis.

Indianapolis, IN

Address:
7726 Moller Road
Indianapolis, IN 46268

Tel: (317) 875-5894
Fax: (317) 872-6189

General Manager:
Karl Anderson

Sales Contact:
Andy Koerner

Quality Manager:
Beth Schrage

Personnel Overview:
Number of Personnel 51
Technical Personnel 30
Support Personnel 21
BS/BA 34

- Well-equipped, 17,600 ft^2 laboratory, providing:
  - organic and inorganic analyses
  - industrial hygiene services
  - air toxics
  - Ohio VAP certification

Major Instrumentation:

11 Gas Chromatographs
9 GC/MS Systems
2 ICPs
1 UV/VIS Spectrophotometer
1 Mercury Analyzer
1 Lachat Automated Analyzer

History:
The Indianapolis Laboratory became part of the Pace Analytical laboratory network in 1998. Pace Analytical acquired the ATC Associates Laboratory (IN) and the Core Laboratory (IN) from Core Labs. The two operations were combined into the current facility and now provide full analytical services as well as specialty analyses with regional coverage for Indianapolis, Ohio, Kentucky and eastern Illinois.

Kansas City, KS

Address:
9608 Loiret Boulevard
Lenexa, KS 66219

Tel: (913) 599-5665
Fax: (913) 599-1759

General Manager:
David Neal

Sales Contact:
Clayton Campbell

Quality Manager:
Charles Morrow

Personnel Overview:
Number of Personnel 66
Technical Personnel 33
Support Personnel 33
BS/BA 42

- 17,500 ft² , full service laboratory, providing:
  - full organic and inorganic analyses
- Sampling services include:
  - groundwater
  - soil
  - wastewater
  - bioassay
- Large project capacity

Major Instrumentation:
7 Gas Chromatographs
9 GC/MS Systems
2 Ion Chromatographs
1 Lachat Automated Analyzer
2 ICPs
1 Mercury Analyzer
1 Discrete Analyzer

History:
The Kansas City laboratory operation has been in existence for more than 37 years and began as part of Langston Laboratories. In 1989, the laboratory was purchased by PACE, Incorporated and moved into a newly constructed laboratory facility in 1990. The facility was designed and built as an environmental laboratory. In 1995, the Kansas City lab was included in the purchase of the labs that formed Pace Analytical Services, Inc. Recently, the lab has been renovated and enlarged to focus on customer service, workflow processing and increased capacity. The Kansas lab is an 18,000 square foot facility located in Lenexa, KS. Included in the Kansas lab network is the SE Kansas microbiological laboratory and Service Centers in Dallas, Denver, Wichita and St. Louis. These facilities provide comprehensive coverage in the Central Plains region including Arkansas, Colorado, Iowa, Illinois, Kansas, Missouri, Oklahoma, New Mexico, Nebraska, Northern Texas, Utah and Wyoming.

Minneapolis, MN

Address:
1700 Elm Street, Ste 200
Minneapolis, MN 55414

Tel: (612) 607-1700
Fax: (612) 607-6444

General Manager:
Sarah Cherney – Environmental
Donald Stock – Field Services

Sales Contact:
Mary Sitko – Environmental
Tom Halverson – Field Services

Quality Manager:
Melanie Ollila – Environmental
Aaron Fredrikson – Field Services

Personnel Overview:
Number of Personnel 97
Technical Personnel 52
Support Personnel 53
BS/BA 60

- 49,000 ft², full service laboratory, providing:
  - full organic & inorganic analyses
  - air toxics (vapor intrusion)
  - microbiology
  - alkylated PAH
  - collision cell
  - KPMS
  - high resolution mass spec (dioxin, PCB congener & brominated cmpds)
  - drinking water analyses
- mobile analytical lab
- Sampling services include:
  - groundwater
  - air (ambient and stack)
  - wastewater
  - soil

Major Instrumentation - Environmental:
10 Gas Chromatographs
19 GC/MS Systems
5 HRGC/HRMS Systems
1 Mercury Analyzer
2 Automated Analyzer
2 ICPs
3 ICP/MS
1 Headspace (Dynamic and Static)

Major Instrumentation – Field Services:
12 Field Service Vehicles
2 CEMs Trailers
6 Gas Phase FTIR
1 Portable GC/TCD
25 Gas Analyzers
15 Isokinetic Sampling Trains (Stack Testing)
20 Isco Automatic Samplers
Grundfos Pumps and other water sampling equipment

History:
The Minneapolis laboratory operation was started in 1978 by Steve Vanderboom. After the sale of the laboratory to Pace Analytical in 1995, a new laboratory facility was designed and built to house both the laboratory and the corporate offices. The 49,000 square foot facility was completed in 1997 and was designed to emphasize open flow of communications and samples throughout the laboratory and maximize productivity of all lab and field professionals. The laboratory has specialty capabilities including air toxics, collision cell, FTIR, dioxin/furan analysis, KPMS, field services and more.

Billings, MT

Address:
602 So 25th Street
Billings, MT 59101

Tel: (406) 254-7226
Fax: (406) 254-1389

General Manager:
Sarah Cherney

Sales Contact:
Kathy Smit

Quality Manager:
Melanie Ollila

Personnel Overview:

Number of Personnel 12
Technical Personnel 7
Support Personnel 5
BS/BA 10

- 5,000 ft², full service laboratory, providing:
  - inorganic analyses
  - soil processing
  - VPH/EPH
  - Asbestos
  - Chlorophyll A

NVLAP accredited

Major Instrumentation:

4 GCs with PID and FID detectors
1 IC
1 Auto Analyzer
2 Ovens
1 Muffle furnace
4 Microscopes

History:
The Billings laboratory serves the Montana, Idaho, northern Wyoming and western Dakotas. The laboratory analyzes a full complement of tests to support the environmental, mining, UST and wastewater markets. The laboratory also specializes in bulk asbestos testing as well as fiber counts across the United States. The Montana laboratory has extensive capabilities and numerous accreditations for the analysis of groundwater, wastewater, soil, hazardous waste and air. The Montana lab provides a full state specific range of organic, water quality and microscopy testing services.

New Orleans, LA

Address:
1000 Riverbend Blvd.
Suite F
St. Rose, LA 70087

Tel: (504) 469-0333
Fax: (504) 469-0555

General Manager:
Chris Weathington

Sales Contact:
Henry Pelitire

Quality Manager:
Russell McNiece

Personnel Overview:

Number of Personnel 44
Technical Personnel 23
Support Personnel 21
BS/BA 24

- 14,000 ft², full service laboratory, providing:
  - Appendix IX analyses
  - Full service organic and inorganic analyses
  - Extensive UST capabilities
  - Waste characterization
  - Louisiana RECAP
  - Texas TRRP
  - Alkylated PAHs with Bio markers
- Sampling services for: groundwater, wastewater and soil

Major Instrumentation:

14 Gas Chromatography
11 GC/MS
1 Cold Vapor Mercury Analyzer
1 Konelab Automated Analyzer
1 SmartChem Automate Analyzer
2 ICPs
1 Thermo Decomposition Amalgamation AA Mercury Analyzer
1 TOC Analyzer
1 Ion Chromatography
1 Microwave Extractor
1 UV Vis Spectrophotometer
1 TOX Analyzer

History:
The New Orleans laboratory has been in operation since 1967. Originally part of Gulf South Research Institute (GSRI), the laboratory has also been known as the Gulf South Environmental Labs, Inc. (GSELI), Applied Bioscience, Incorporated (APBI) and PACE, Incorporated, before being purchased by Pace Analytical Services, Inc. in 1995. While several name changes have occurred, many key personnel remain with the company to this day. The New Orleans laboratory is a 14,000 square foot facility that provides full organic and inorganic analyses in accordance with RCRA, CWA, SDWA, TSCA and UST programs – for a variety of matrices. In addition, certain special services, including full valid data packages and electronic deliverables. The New Orleans lab supports services for Southern Texas, Louisiana, Mississippi, Alabama and Florida. New Orleans also provides services to Puerto Rico from its San Juan Service Center.

Schenectady, NY

Address:
2190 Technology Drive
Schenectady, NY 12308

Tel: (518) 346-4592
Fax: (518) 381-6055

General Manager:
Dan Pfalzer

Sales Contact:
Marty Rowan

Quality Manager:
Christina Braidwood

Personnel Overview:
Number of Personnel 41
Technical Personnel 22
Support Personnel 19
BS/BA 27

- 15,000 ft², full service laboratory, providing:
- full organic and inorganic analyses
- air analysis for PCBs by TO-10A & TO-4A
- Low level PCB water analysis Aroclors 50 ng/L (PPT) or PCB Congener 9 ng/L (PPT) total PCB
- PCB Congener Blood/Serum analysis
- PCB Congener Analysis by Green Bay or CQCS 8082 (all 209 congeners)
- PCB Homolog Analysis by USEPA 680
- AVS/SEM
- Biota Lab

Major Instrumentation:

14 Gas Chromatographs (GC/ECD)
5 Gas Chromatographs (GC/PID/FID)
5 GC/MS Systems
1 Mercury Analyzer
1 Automatic Absorption Spectrometer
72 units Soxhlet Extraction Apparatus
2 Total Organic Carbon Analyzer
1 ICP
1 Milestone Ethos EX Microwave Extraction System (MES)
4 – Dionex ASE 200 Accelerated Solvent Extractor
16 units Horizon SPE-DEX 4790 Series Automated Solid Phase Extractor

History:
The Schenectady laboratory operation was started in 1989 by Robert E. Wagner, Lab Director and Robert W. Stoll under Northeast Analytical (NEA). This laboratory is the newest acquisition for Pace Analytical Services. The laboratory is 15,000 square feet originally specializing in high resolution PCB analysis and expanded its analytical services in the 1990's to include: Inorganics, Metals, Volatiles (VOCs) and Semi-volatiles (SVOCs). Although the laboratory has expanded its services, it has stayed at the forefront of PCB measurement and research. We have developed congener specific PCB analytical methodology that have supported many programs investigating PCB problems and issues in several major river systems in the United States.

Pittsburgh, PA

Address:
1638 Roseytown Rd
Suites 2, 3, 4
Greensburg, PA 15601

Tel: (724) 850-5600
Fax: (724) 850-5601

General Manager:
Bob Wyeth

Sales Contact:
Richard Hixson

Quality Manager:
Randal Hill

Personnel Overview:

Number of Personnel 59
Technical Personnel 29
Support Personnel 30
BS/BA 40

- 18,000 ft², full service laboratory, providing:
  - SW846 organics and inorganics
  - Extensive UST capabilities
  - Waste and mixed waste characterization
- PA DEP Drinking Water Certified
- NRC low level license

Major Instrumentation:

6 Gas Chromatographs
7 GC/MS Systems
1 Mercury Analyzers
2 ICP
1 Lachat Automated Analyzer
1 HPLC

History:
The Pittsburgh laboratory has been in operation since 1982. The laboratory was originally known as Antech. Ltd before being purchased by Pace Analytical Services, Inc. in May 2002. While the name changed, many key personnel remained with the operation. The new 18,000 square foot facility located in Greensburg provides full organic and inorganic analyses in accordance with RCRA, NPDES, TSCA, and 10 CFR 61 waste data packages and electronic deliverables. The laboratory also supports the radiochemistry testing needs for some of the largest organizations in the United States who are actively involved in the monitoring of radioactivity. Courier services are also available upon request. The Pittsburgh lab supports the Mid-Atlantic region which includes Pennsylvania, New Jersey, New York, Maryland, Delaware and West Virginia.

Seattle, WA

Address:
940 So Harney St
Seattle, WA 98108

Tel: (206) 767-5060
Fax: (206) 767-5063

General Manager:
Dave Neal

Sales Contact:
Lisa Domenighini

Quality Manager:
Rich Henson

Personnel Overview:
Number of Personnel 25
Technical Personnel 22
Support Personnel 3
BS/BA 23

- Well-equipped, 15,000 ft^2 laboratory, providing:
  - Organic and Inorganics analyses
  - Microbiology
- Sampling services include:
  - groundwater, wastewater, soil, and air (ambient & stack)

Major Instrumentation:

8 Gas Chromatographs	1 Astoria Pacific Automated Analyzer
5 GC/MS Systems	2 High Performance Liquid Chromatographs
2 Ion Chromatographs	1 ICP
2 Mercury Analyzers	1 ICP/MS

History:
Pace Analytical's Seattle laboratory is a full-service analytical laboratory with vast experience in all facets of DOD, CERCLA, RCRA and CWA programs. For more than 100 years, this laboratory has provided analytical chemistry and microbiological services for environmental, industrial manufacturing, clinical pharmaceutical, toxicological and mineralogical customers. The laboratory was purchased by Pace Analytical Services, Inc. in 2008 and provides more laboratory capacity for Pace's expanding federal market.

3. Capabilities

Environmental Analytical Services

Pace Analytical offers extensive capacity for organic and inorganic analysis as well as a broad range of specialty services, which allows us to meet the environmental analytical needs of our customers. In addition, our investments in consistency and standardization provide us with the ability to maximize the capabilities and capacity of all the laboratories, providing extra assurance that client turn-around times are met. Pace Analytical provides services through an integrated system of modern, fully equipped laboratories that can analyze a variety of sample matrices ranging from air and water, to hazardous wastes.

Pace Analytical's Specialty Analytical Services include:

- **Dioxin / Furan**
- **Biota**
- **Air Toxics**
- **Industrial Hygiene**
- **Microbiological**
- **Mixed Waste Characterization**
- **Drinking Water**
- **Groundwater / Wastewater Sampling**
- **Low Level Mercury Analysis**
- **Soil Vapor Intrusion**
- **Radiochemistry**
- **PCB Congeners**
- **Asbestos Testing**
- **Field Sampling and Analysis**

Life Sciences

Pace Analytical Life Sciences is a full service contract analytical testing laboratory providing chemistry and microbiology testing services to the pharmaceutical and medical device industries. Pace Analytical Life Sciences has been operating since September 2006. In April 2007, the assets of P3 Scientific were purchased. P3 Scientific had been the dedicated contract laboratory to 3M's Pharmaceutical Division since 1996. Our Oakdale, MN facility is a 40,000 square foot laboratory that is equipped with state-of-the-art instrumentation. Our services include methods development/validation, raw material testing, stability testing and storage, product release testing, microbiology testing, chemical characterization, residual chemical analysis and biocompatibility studies. Our laboratory is FDA registered, cGMP compliant, DEA registered and ISO/IEC 17025:2005 accredited.

Product Testing / Characterization

Specializing in biodegradation studies, Pace Analytical's bio-analytical services group provides research support for existing and new chemistries. Our services include analyte specific measurements using LCMS. Our staff is compliant with 40 CFR – Part 160 guidelines and has extensive experience in study design (incubation parameters, media and inoculum selection) and method development (sample preparation, extraction and measurement method).

Field Services

Pace Analytical's Field Services Division has more than 25 years experience in serving the national and international environment market.

Using state-of-the-art equipment and over two decades of industry experience and expertise, Pace Analytical provides comprehensive service offerings including: stack testing, ambient air, wastewater, groundwater, soil and waste material testing and sample collection.

The breadth of our testing services is unique in that we monitor all environmental matrices and have experienced a vast array of testing methodologies. While our extensive cross training allows us to move resources to meet the demand, we also foster a staff of experts who proactively study their particular discipline to maintain industry leadership. We excel in unique and complex sampling situations, especially new or changing compliance testing requirements. We have considerable experience in adapting current methodologies to difficult applications as well as developing new procedures.

A successful environmental monitoring project requires a partnership between our customer and our testing experts. Many aspects of administration, production, maintenance and schedule commitments must interact with testing activities to ensure that all project objectives are met. We understand that proper equipment, rigorous maintenance and timely calibrations are paramount to ensuring testing integrity, accuracy and data quality.

To further protect and serve our clients and staff, Pace Analytical is also committed to safety. Field testing activities and working in a multitude on client settings create a unique safety challenge. Pace Analytical places a top priority on employee safety. We provide employees with an extensive safety program that includes frequent training and well-maintained equipment for confined space entry, traffic control, environmental hazards and personal protection. Our safety program not only provides for the welfare of our staff, but also reduces potential liability on our customer's properties. Pace Analytical strives to exceed the safety needs and programs of our clients while on-site.

A significant differentiator for Pace Analytical is that we can analyze nearly every type of sample we collect. We have 17 full-service, nationally accredited and state certified laboratories to support our sampling capabilities. We are one of the few environmental firms that can collect and analyze samples for a complete offering of routine and specialty analysis in any matrix. "Shipping" to us is most often handing samples directly to one of our laboratory colleagues.

LabOps

Pace Analytical Operations can meet your needs for professional technical support activities, operations and laboratory management with your manufacturing facility.

- Professional Staffing: Pace Analytical's Professional Staffing division is the high quality solution when it comes to fulfilling your scientific staffing needs. We excel in providing qualified employees that are essential to your success. Whether you have one or two positions to be filled or would like us to staff and manage an entire lab or regulatory team, our flexibility enables us to help you with technician level skill sets through Ph.D. expertise.

- Regulatory Services: Pace Analytical's Regulatory Service can aid your business in complying with today's complex global regulations. Our team possesses the knowledge, experience and technical resources necessary to guide your business through the regulatory maze.

- Lab Equipment – Sales: Pace Analytical buys and sells refurbished analytical laboratory equipment to companies in various industries worldwide. Pace Analytical's Instrument Support Group (ISG) provides a variety of refurbished analytical instrumentation to various sectors of the analytical industry worldwide. ISG specializes in chromatography equipment including GC, GC/MS, LC and LC/MS. ISG follows GLP and cGMP guidelines where applicable to meet the specific needs of customers and is ISO 9001:2000 certified as part of the LabOps division.

- Lab Equipment – Services: Pace Analytical's Instrument Support Group (ISG) provides instrument maintenance, repair and qualification services on GC, GC/MS, LC and LC/MS. ISG is an excellent option for pharmaceutical, environment petrochemical and food laboratories looking to reduce the cost of instrumentation services, without reducing the quality of the service. ISG follows GLP and cGMP guidelines where applicable to meet the specific needs of customers and is ISO 9001:2000 certified as part of the LabOps division.

Pace Analytical has fifteen laboratories and nine service center locations nationwide. Pace Analytical is able to provide, through our laboratory system, complete capabilities for air toxics analysis, aquatic bioassay, industrial hygiene, dioxin/furan, PCB congeners, microbiology, asbestos, radiochemistry, full organic and inorganic analyses, and mobile laboratories. The following table is a summary of our nationwide capabilities broken down by laboratory.

Capabilities	Asheville	Charlotte	Columbus	Florida	Green Bay	Indianapolis	Kansas City	Minnesota	Montana	New Orleans	New York	Pittsburgh	Seattle
Inorganics													
Wet Chemistry	•		•	•	•	•	•	•	•	•		•	•
ICP Metals	•		•	•	•	•	•	•		•		•	•
ICP/MS Metals			•	•	•			•					•
CVAA Mercury			•		•			•		•			•
Volatile Organics													
GC(601/602,8021)		•			•	•	•	•	•	•		•	•
BTEX		•	•	•	•	•	•	•	•	•		•	•
GC/MS		•	•	•	•	•	•	•		•		•	•
Semi-volatile Organics													
GC Pest/PCB		•	•	•		•	•	•		•		•	•
GC Diesel		•	•	•	•	•	•	•	•	•		•	•
GC/MS		•	•	•	•	•	•	•		•		•	•
HPLC				•								•	•
Field Services													
Field Sampling	•	•		•			•	•		•		•	
Stack Sampling								•					
Mobile Laboratory								•					
Specialty Services													
Air Toxics								•					
Appendix IX		•			•					•			•
Bacteriological	•			•	•		•	•		•		•	•
Bioassay	•						•						
Dioxins/Furans								•					
PAHs by GC/MS-SIM		•	•		•	•	•	•		•	•	•	•
PCB Congeners								•			•		
Drinking Water	•	•	•	•	•	•	•	•	•	•	•	•	•
CLP SOW Capability										•	•		•
CLP Contract Experience						•				•			•
Radiochemistry												•	
Mixed Waste (Radioactive)												•	
Tissue					•			•					
Industrial Hygiene						•		•					
Asbestos			•						•				

State Program	Asheville	Charlotte	Columbus	Florida	Green Bay	Indianapolis	Kansas	Minneapolis	Montana	New Orleans	Pittsburgh	Seattle
Additional Accreditations, Approvals, Permits & Licenses												
NELAP	•	•	•	•	•	•	•	•	Δ	•	•	•
EPA CLP								•				
AFCEE								•				
U.S. ACOE								•				
Ohio VAP			•			•		•				
NFESC												•
DASIP	•	•		•	•	•	•	•	•	•	•	•
NRC											•	
ISO17025							•	Δ				
ISO17025 - diox								•				
CNMI (diox)								•				
EPA Reg 5 (dw-diox)								•				
EPA Reg 8 (dw-diox)								•				

• We are certified to do this only for dioxin right now. We are getting audited for air DOD work right now (this week) which would be AFCEE and US-ACOE

• We are certified only for dioxin, PCB congener, and air in Ohio.

	Instrumentation																						
	Lab Area (ft^2)	Microscopes	ICP	ICP/MS	Mercury Analyzer	Low Level Mercury Analyzer	Ion Chromatograph	Lachat Automated Analyzer	Discrete Analyzer	Gas Chromatograph	HPLC	GC/MS	IR Spectrophotometer	High Resolution MS	GFAA	LC/MS - Single Quad	Gas Phase FTIR	Gamma Spectrometer	Gas Flow Prop. Counter	Alpha Scint. Counter	Liquid Scint. Counter	Alpha Spectrometer	Total
Asheville	8,000	0	2	0	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Charlotte	12,000	0	0	0	0	0	0	0	0	9	0	8	0	0	0	0	0	0	0	0	0	0	17
Columbus	10,200	0	1	1	1	0	0	0	3	5	0	5	0	0	1	0	0	0	0	0	0	0	17
Florida	11,000	0	1	1	2	0	2	2	0	10	3	7	0	0	0	0	0	0	0	0	0	0	28
Green Bay	27,000	0	1	1	2	3	2	1	0	17	0	15	0	0	0	0	0	0	0	0	0	0	42
Indianapolis	17,600	0	2	0	1	0	0	1	0	11	0	9	0	0	0	0	0	0	0	0	0	0	24
Kansas City	17,500	0	2	0	1	0	2	1	1	7	0	9	0	0	0	0	0	0	0	0	0	0	23
MN Field Services Div		0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	6	0	0	0	0	0	9
Minneapolis	45,000	0	2	3	1	0	1	0	1	10	0	17	0	5	0	0	0	0	0	0	0	0	40
Montana	5,000	4	0	0	0	0	1	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	10
New Orleans	14,000	0	2	0	2	0	1	0	3	14	0	11	0	0	0	0	0	0	0	0	0	0	33
New York	15,000	0	2	0	1	0	0	0	0	19	0	5	0	0	1	0	0	0	0	0	0	0	28
Pittsburgh	18,000	0	2	0	1	0	1	1	1	6	0	7	1	0	0	0	0	1	3	2	1	1	28
Seattle	15,000	0	1	2	2	0	2	1	0	8	2	5	0	0	0	0	0	0	0	0	0	0	23
Total	200,300	4	15	8	14	3	12	9	10	101	5	90	2	5	1	0	6	1	3	2	1	1	330

4. Systems

Web-based Report Access - PacePort

Pace Analytical has developed an Internet site called PacePort that allows clients of any Pace Analytical laboratory to view, download and print analytical reports and invoices. PacePort is a secured site, utilizing individual log-on ID's and passwords. Data is encrypted between the client's browser and the download site. Reports and invoices are posted on the site in Adobe® PDF format and remain available online for several years.

PacePort is a web-based data-management tool designed specifically for our customers. With up-to-the-hour data access from your computer, you have a quick resource to the information you need – when you need it.

- Quick, easy and secure access to your data – 24/7
- Confirm sample receipt and methods requested
- Check status of samples or projects at the lab
- Provide added value to your clients and projects
- Generate custom Electronic Data Deliverables (EDD)
- Order your containers online
- Improve your data/report management efficiency
- Put watches on critical projects to receive email notifications of results
- Select type of notifications that you want to receive
- Work on deadlines during non-business hours
- Archive all historical site/project data and reports
- Share data access with all interested stakeholders

PacePort can be accessed via the Pace Analytical Website: **www.pacelabs.com**. To begin using PacePort, clients must first register to obtain their user ID and password. A Pace Analytical project manager will assist the client in setup an account to access their reports on PacePort. For more information, please contact your Pace Analytical Project Manager.

LIMS / Instrument Automation / EDDS

Pace Analytical has invested heavily in systems automation and electronic communications in order to enhance our turnaround time and service quality. These investments in technology were made because we believe that if we communicate to you more efficiently, you will spend less time and effort understanding and utilizing the analytical data that we provide. Our information systems support our Client Services, Accounting and Laboratory Operations. The entire network of Pace Analytical laboratories is integrated, allowing real-time sharing of information between our facilities and between the departments within those facilities.

LIMS *(Laboratory Information Management Systems)*

Pace Analytical has implemented a LIMS, called EPIC Pro (Environmental Project and Information Control), which has been custom-designed for Pace Analytical and the specific needs of environmental laboratory operations. It is based on an Oracle relational database, giving the system the flexibility to adapt to many of your specific project and reporting requirements. From sample check-in to invoicing, EPIC Pro models the laboratory operations, eliminating redundant processes and data entry, and allowing for greater standardization in areas such as quality control batching, data reporting, and billing throughout the Pace

Analytical system. As well as having a common LIMS, the Pace Analytical laboratories are linked via a high-speed network, which allows for transparent information transfer.

LIMS General Capabilities:

Project Definition/Sample Pre-check-in: This feature allows a Pace Analytical project manager to load into the LIMS most of the information that sample check-in will need at the time of sample receipt allowing for a faster log-in proves..

Sample Check-in: All samples delivered to Pace Analytical's sample coordinator are entered into the LIMS and organized by project number. All relevant project information accompanying samples is entered into the system at sample check-in, unless the project was "pre-defined," such as client name, client number, project name, project description, sample matrix, analytical method, QC level, due date, etc.

Scheduling: Each day, Pace Analytical department managers check on-line or receive computer reports listing those projects which are still open within each analytical area. Based on these reports, managers set priorities and schedule work appropriately to meet the project needs.

Project Management: Pace Analytical has established a separate client services area to manage all project aspects. An important element of this function is to coordinate the compilation of data on projects involving analyses over multiple locations. Other important functions of this area are to maintain client liaison, expedite report delivery, help laboratory managers schedule work, etc. For large project commitments, Pace Analytical designates a specific Project or Program Manager. Project Managers find the LIMS to be an effective tool for achieving project schedules, budgets and objectives, and maintaining client satisfaction.

Data Entry: All data generated within each analytical area are entered or uploaded into the computer system according to project number. The data is not entered until all quality assurance/quality control checks have been made. Project management/client services staff routinely review outstanding projects to make sure appropriate progress is being made on the completion of required analyses.

Data Reporting: When all analyses have been completed and entered, a draft final report is generated from the LIMS. The draft final report is reviewed by all appropriate management staff whose analytical areas have been involved on that project. Upon review, any corrections are made before issuing a final report, which is sent out to the client. In addition to the hard copy, the report, or the report data, can be copied onto a CD, Adobe Acrobat format via e-mail, diskette, CD or download from the Internet.

Management Information: The LIMS also provides information concerning the numbers of samples analyzed, the number of specific analyses performed, holding time status, and other information is used by Pace Analytical management to track capacity, efficiency and productivity and, ultimately, the need to add capacity.

Invoicing: Automated invoicing is accomplished at the time of project initiation or by the input of pricing information during sample/project entry.

Instrument Upload

Pace Analytical laboratories also utilize various forms generation software packages. These software packages allow for automated routing of instrument-generated data directly into processors that will develop complex data deliverable packages. This helps to provide a consistent deliverable package to our clients. Pace Analytical has also invested significant resources in automating the results upload process from our instruments directly into the LIMS system. This automatic upload eliminates the potential for transcription error and helps us meet shorter turn-around time requests from our clients.

Most of our laboratories have implemented Thermo's Target Software for Windows to automate our organic laboratories. Many laboratories also utilize Labtronics LIMSLINK software to automate the upload of results from metals instruments. These systems provide Pace Analytical staff with a significant reduction in data

processing time, and eliminate transcription and related errors. It also facilitates the productions of "CLP-like" forms and electronic data deliverables.

Electronic Communications

Email: Pace Analytical's email system, installed in all our laboratories and our corporate office, allows us to communicate to our clients via the Internet. All Pace Analytical employees can be reached via the following protocol: firstname.lastname@pacelabs.com.

Electronic Delivery of Results: Pace Analytical offers our clients the electronic delivery of results in a number of different ways. Electronic results are available from our Website through PacePort, on CD or via e-mail. PacePort allows clients to view, download and print analytical reports and invoices. The standard format for these files is Adobe® PDF; however, other formats such as ASCII-delimited, CSV, or Excel spreadsheets are available.

EDI: Pace Analytical currently is set up to allow our clients to pay our invoices in an electronic fashion, with electronic payments being accepted directly into our bank account. In addition, we have EDI communications with some clients.

Novell Network Using VPN Technology: Our Corporate IT staff maintains a Novell network that allows Pace Analytical to efficiently share information between all locations. This network supports our internal e-mail system, the Pace Analytical intranet, and allows for the sharing of analytical project information and financial information.

5. Quality

Pace Analytical Certifications

State Program	Asheville	Charlotte	Columbus	Florida	Green Bay	Indianapolis	Kansas	Minnesota	Montana	New Orleans	New York	Pittsburgh	Seattle
AK (dw)								●					●
AK (env)								●					●
AK (dw-micro)													●
AL (dw)				●									
AL (diox-dw)								●					
AL (rad-dw)												●	
AR (bioassay)							●						
AR (env)							●	●					
AR (dw)								●					
AR (diox-dw, hz, ww)								●					
AR (rad-dw)												●	
AZ (air)								●					
AZ (dw)				●									
AZ (diox-dw, hz, ww)								●					
AZ (rad-dw)												●	
CA (dw)													●
CA (ww)					●								●
CA (hz)					●								●
CA (diox-dw, hz, ww)								●					
CA (rad-dw)												●	
CO (asbestos)									●				
CO (dw)				●				●					
CO (diox-dw)								●					
CO (rad-dw)												●	
CT (dw)		●		●				●					
CT (hz, ww)	●	●		●				●			●	●	
CT (diox-dw, hz, ww)								●					
CT (rad)												●	
DE (dw)													
DE (rad-dw)												●	
FL (air)								●					
FL (dw)		●		●				●					●
FL (env)	●	●		●	●			●		●		●	●
FL (diox-air, dw, hz, ww)								●					
FL (rad-dw)												●	
FL (tissue)					●			●					
GA (dw)		●		●				●					
GA (env)		●		●	●			●					
GA (diox-dw, hz, ww)								●					
GA (rad-dw)												●	
Guam (dw)				●									
Guam (diox-dw)								●					
Guam (rad-dw)												●	
HI (dw)				●				●					
HI (diox-dw)								●					
HI (rad-dw)												●	
IA (dw)								●				●	
IA (env)							●	●					

State Program	Asheville	Charlotte	Columbus	Florida	Green Bay	Indianapolis	Kansas	Minnesota	Montana	New Orleans	New York	Pittsburgh	Seattle
ID (dw)								●	●				
ID (diox-dw)								●					
ID (rad-dw)												●	
IL (dw)						●		●					
IL (env)					●	●	●	●					
IL (diox-dw, hz, ww)								●					
IL (rad-dw)												●	
IN (dw)			●			●							
IN (diox-dw)								●					
IN (rad-dw)												●	
KS (micro)							●						
KS (dw)							●	●					
KS (hz, ww)						●	●	●		●			
KS (bioassay)							●						
KS (diox-dw)								●					
KS (rad-dw)												●	
KY (dw)				●									
KY (ust)		●			●	●							
KY (diox-dw)								●					
KY (rad-dw)												●	
LA (air)								●					
LA (bioassay)							●						
LA (dw)		●		●				●		●			
LA (hz, ww)		●			●		●	●		●		●	
LA (tissue)					●			●					
LA (diox-air, dw, hz, ww)								●					
LA (rad-dw, hz, ww)												●	
MA (dw)				●									
MA (ww)												●	
MA (env)				●							●		
MA (rad-dw)												●	
MD (dw)								●					
MD (rad-dw)												●	
MD (diox-dw)								●					
ME (dw)				●				●					
ME (ww)								●				●	
ME (diox-dw, ww)								●					
ME (rad-dw)												●	
MI (dw)				●				●					
MI (diox-dw)								●					
MI (rad-dw)												●	
MN (dw)								●	●				
MN (hz, ww)					●			●	●				
MN (diox-dw, ww)								●					
MN (rad-dw)													
MN (air)								●					
MO (dw)													
MO (rad-dw)												●	
MS (dw)				●				●					
MS (diox-dw)								●					
MT (dw)				●				●	●				
MT (diox-dw)								●					
MT (rad-dw)												●	
NC (bioassay)	●												

State Program	Asheville	Charlotte	Columbus	Florida	Green Bay	Indianapolis	Kansas	Minnesota	Montana	New Orleans	New York	Pittsburgh	Seattle
NC (dw)	●	●		●				●					
NC (ww)	●	●			●			●			●	●	
NC (hz)								●					
NC (diox-dw)								●					
NC (rad-dw)												●	
ND (dw)								●					
ND (ww)					●			●					
ND (hz)					●			●					
NE (dw)								●					
NE (diox-dw)								●					
NH (dw)				●									
NH (ww)												●	
NH (env)				●									
NH (hz)													
NH (rad-dw)												●	
NJ (air)								●					
NJ (dw)				●				●					
NJ (ww)	●	●		●				●				●	
NJ (hz)	●	●		●				●			●	●	
NJ (diox-dw, hz, ww)								●					
NJ (rad-dw)												●	
NM (dw)								●					
NM (diox-dw)								●					
NM (rad-dw)												●	
NV (dw)				●				●					
NV (ww)							●	●					
NV (hz)							●	●					
NV (diox-dw, ww)								●					
NV (rad-dw, hz, ww)												●	
NY (air)								●			●		
NY (dw)				●				●			●		
NY (env)					●						●	●	
NY (diox-air, dw, ww)								●					
NY (rad-dw, ww)												●	
OH (dw)			●					●					
OH (diox-dw)								●					
OH (VAP-hz, ww)			●			●		●					
OH (VAP-air)								●					
OR (air)								●					
OR (dw)								●					●
OR (ww)							●	●		●			●
OR (hz)							●	●		●			●
OR (diox-air, dw, hz, ww)								●					
OR (rad-dw)												●	
OK (micro)							●						
OK (bioassay)							●						
OK (env)							●	●					
OK (diox-dw)								●					
PA (dw)				●				●				●	
PA (hz)	●	●				●		●		●		●	
PA (ww)	●	●				●		●		●		●	
PA (diox-dw, hz, ww)								●					
PA (rad-dw, hz, ww)												●	
PR (dw)				●				●					

State Program	Asheville	Charlotte	Columbus	Florida	Green Bay	Indianapolis	Kansas	Minnesota	Montana	New Orleans	New York	Pittsburgh	Seattle
PR (rad-dw)												●	
PR (dw-diox)								●					
SC (dw)	●	●											
SC (hz)	●	●			●								
SC (ww)	●	●			●							●	
SC (diox-dw, hz, ww)								●					
SC (bioassay)	●												
SD (dw)													
SD (rad-dw)												●	
TN (dw)				●				●					
TN (diox-dw)								●					
TN (rad-dw)												●	
TX (air)								●					
TX (bioassay)							●						
TX (dw)				●				●					
TX (env)							●	●		●			
TX (diox-dw, hz, ww)								●					
TX (rad-dw)												●	
UT (bioassay)							●						
UT (dw)								●					
UT (env)							●	●				●	
UT (diox-dw, hz, ww)								●					
UT (rad-dw, hz, ww)												●	
VA (dw)	●	●		●				●					
VA (diox-dw)								●					
VA (rad-dw)												●	
VT													
WA (air)								●					
WA (dw)								●					●
WA (env)							●	●		●			●
WA (diox-dw, hz, ww)								●					
WA (rad-dw)												●	
WI (dw)					●			●					
WI (env)					●			●					
WI (diox-dw, hz, ww)								●					
WI (rad-dw)												●	
WV (air)								●					
WV (dw)													
WV (env)	●					●						●	
WV (diox-dw)								●					
WV (rad-hz, ww)												●	
WY (dw) (via EPA 8)							●	●					
WY (diox-dw) (via EPA8)							●						
WY (rad-dw)												●	
US VI (dw)													
US VI (rad-dw)												●	
Saipan (diox-dw)								●					
ISO 17025 (asbestos)								●					
ISO 17025 (dioxin)								●					
ISO 17025 (dw)								●					
ISO 17025 (env)								●					
ISO 17025 (air)								●					

NELAP Accreditation

All Pace Analytical full-service laboratories are accredited National Environmental Laboratory Accreditation Program (NELAP). NELAP is the EPA program that administers the National Environmental Laboratory Accreditation Conference (NELAC) process. A major NELAC goal is to assure that laboratories provide analytical data at a high level of quality, providing the basis for sound decision-making.

NELAP Accreditation provides additional assurance to Pace Analytical clients that their laboratory supplier has met significant National Quality Systems standards.

Quality Assurance Program

The following sections describe the Quality Programs in place at Pace Analytical.

Quality Philosophy

The philosophy that has been cultivated at Pace Analytical is that of total quality. We understand that quality data is top priority, yet we also know that quality data that is not efficiently communicated in a timely manner is of diminished value to the client. Therefore, Pace Analytical has dedicated the resources at the corporate and laboratory levels.

Quality Control consists of specific procedures applied to all phases of analysis from sample receipt through the final reporting of results. The purpose of quality control is to ensure that quality goals are met under routine operating procedures. Quality Assurance involves the continuous evaluation of data and monitoring of analytical processes for the purpose of ensuring that the quality control systems are performing effectively.

Organizing

The Quality Office in the laboratory is independent from operations and reports directly to the Laboratory General Manager. This reporting hierarchy allows autonomous quality assurance activities within the laboratory system. Pace Analytical also has a corporate Quality Office to ensure consistent quality throughout our laboratory system.

Program Objectives

The major elements of the Laboratory Quality Assurance/Quality Control Program are summarized below. A complete copy of our Quality Assurance Manual is available upon request.

- Use of appropriate methodologies by technically competent, well-trained personnel with modern instrumentation and equipment.
- Adherence to well-defined standard operating procedures with emphasis on good laboratory and measurement practices.
- Analysis and assessment of quality control samples including (but not limited to) matrix spike samples, duplicate samples, surrogate spikes, blanks, and independent laboratory control standards.
- Participation in external quality evaluation programs including EPA Water Pollution and Water Supply (WP & WS) Study Programs, CLP, Air Force, Navy, and numerous state programs.
- Maintenance of accreditation by State, Federal, and other applicable agencies for work performed.

- Monitor internal and external compliance to procedures and to assess the performance of the analytical methods.

Quality Control Deliverables

Although the fundamentals of the laboratory quality control program are applied consistently, Pace Analytical offers several different levels of quality control deliverables. This is designed so that you may meet various quality reporting objectives.

Level Description:

I. Data Reporting Only

II. Preparation Batch Quality Control (QC) Data: blank results, spike recoveries (including matrix spikes), duplicate precision (including matrix spike duplicates) and reference material results (where applicable). A case narrative is provided as necessary and/or on request

III. All items in Levels A and B, and the raw data sheets and chromatograms

IV. The Contract Laboratory Program (CLP) package as defined in the U.S. EPA contract deliverables package

Quality Assurance Plan

Pace Analytical has developed a Quality Assurance Plan (QAP) which is in compliance with the elements required in the US EPA "EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations," EPA QA/R-5. This company QAP is then customized by our individual laboratory locations, as is necessary, to reflect their specific location requirements, processes, and capabilities. The QAP defines the systems of quality control and quality assessment that constitute the comprehensive Quality Assurance Programs within Pace Analytical. Each laboratory follows, at a minimum, the requirements outlined in the QAP. In many instances, as a result of specific program requirements, the laboratories adhere to more rigorous standards than those outlined in the QAP.

6. Rapid Response

Pace Analytical®

PACE RAPID RESPONSE TEAM

WHEN ENVIRONMENTAL DISASTER STRIKES...
The PACE RAPID RESPONSE TEAM (PRRT) is there to help.

RAPID RESPONSE

When disaster strikes – *be it a major fire, a train derailment, an oil spill or a pipeline rupture* – and materials of environmental concern are released to the environment, Pace Analytical's Rapid Response Team is available to discuss urgent environmental options and implement a testing solution. PRRT responders are available 24-7 to ensure that sample containers are available, samples are collected appropriately, critical samples are expedited to the nearest laboratory, and rapid results are provided to decision makers on the scene. This level of lab support is crucial in making decisions that impact the safety of emergency personnel on site and the potential exposure of local residents to hazardous chemicals.

The PRRT can provide the following services and a flexible response to unique site challenges:

- A national network of laboratories and responders
- Expedited shipment or courier of sample supplies to the scene
- On-site technical support and sample logistics
- Rapid laboratory results to support tactical decisions
- Automated, on-line, easy to use data management tools
- Quality data at all times to ensure defensibility should legal challenges arise

The PRRT has extensive experience in a wide range of environmental disaster assistance including:

- Derailments
- Fires
- Pipeline breaks
- Industrial chemical spills or leaks
- Floods and other natural disasters ***(*Pace Analytical can provide references for these types of work upon request.)***

PACE RAPID RESPONSE TEAM:
PH: (877) 859-7778
Email: rapidresponse@pacelabs.com

Pace Analytical Services, Inc.
Corporate Office
1700 Elm Street
Minneapolis, MN 55414
(612) 607-1700
www.pacelabs.com

Rapid_Response_Aug2010_001

7. Personnel

Pace Analytical Senior Management Personnel

Corporate Officers and Senior Management

Our corporate office is located in Minneapolis, MN. The primary function of the corporate officers and senior management is to provide assistance to the independently managed division and locations. They have the strength, experience and business insights to make Pace Analytical succeed and grow.

Steve Vanderboom
PRESIDENT AND CHIEF EXECUTIVE OFFICER
Steve Vanderboom possesses over 30 years of experience in the analytical services industry, specifically in the areas of environmental testing, pharmaceutical and medical device testing, product testing, field services and environmental consulting. Mr. Vanderboom founded Pace in 1978 and has served as its President and CEO since that time. Pace Analytical Services, Inc. is a privately held national company offering analytical services and measurements and employs over 1,000 people in 15 locations around the United States and Puerto Rico. Mr. Vanderboom received a Master's in Environmental Engineering from the University of Minnesota and a Bachelor's in Civil Engineering from South Dakota School of Mines and Technology. Steve lives in the Minneapolis, MN area and is an active participant in his church, community and professional organizations including the American Council of Independent Laboratories and the World President's Organization.

Michael R. Prasch
CHIEF FINANCIAL OFFICER
Mr. Prasch joined Pace Analytical in 1999, and has over 18 years of experience in corporate finance. He currently serves as Chief Financial Officer and is responsible for all financial, Human Resource and administrative activities. He is also responsible for managing Pace's corporate information technology team. He received his B.S. in Accounting from the University of Minnesota and an MBA in finance from Minnesota State University.

Jack Dullaghan
CHIEF OPERATING OFFICER - ENVIRONMENTAL
Mr. Dullaghan possesses over 28 years of experience in the analytical services industry. He joined Pace Analytical in 1997 and currently serves as COO. Mr. Dullaghan is responsible for leading and managing the laboratories and their staffs. He has received a MBA, M.A. in Biochemistry, and a B.S. in Chemistry

Gabe LeBrun
VICE PRESIDENT AND CHIEF OPERATING OFFICER – LABOPS
Mr. LeBrun has over 24 years of experience in the analytical services industry. He joined Pace Analytical in 1990 and over his tenure with the company has managed and directed several Environmental and non-environmental businesses and started the non-environmental business that Pace currently operates today. He is currently responsible for the LabOps division which specializes in on-site Professional Services, instrument Maintenance, Repair and Qualification services, Metrology and Regulatory Data Management. He received is B.S. in Chemistry and Biology from the University of Wisconsin – Eau Claire.

Gregory D. Kupp
CHIEF OPERATING OFFICER – LIFE SCIENCES
Mr. Kupp joined Pace Analytical Life Sciences in 2006 and currently serves as COO of Pace Analytical Life Sciences, LLC. His current responsibilities include the management and oversight of operations within the Oakdale, Minnesota and San German, Puerto Rico Laboratories. He has over 17 years experience in pharmaceutical/medical device outsourcing and holds an M.S. degree in Quality Assurance/Regulatory Affairs from Temple University.

Greg Whitman
VICE PRESIDENT OF SALES AND MARKETING – ENVIRONMENTAL & LABOPS
Mr. Whitman joined Pace Analytical in 1995 and has over 15 years of industry experience. As Vice President of Sales and Marketing, Mr. Whitman directs the company's sales organization to achieve the corporate revenue goals and assists lab operations in positioning for new market opportunities and business growth. Mr. Whitman has a B.S. in Business Administration.

Bruce Warden
DIRECTOR OF TRAINING, SAFETY AND ENVIROMENT
Mr. Warden has more that 30 years of experience in the analytical services industry. He joined Pace Analytical in 1997 and over his tenure with the company has served in various senior management roles. He is currently responsible for the direction of the corporate safety and environment program, and the ongoing direction and development of the corporate training program. He received a B.A. with a major in Chemistry from California Lutheran College and an M.S. in Analytical Chemistry from Oregon State University.

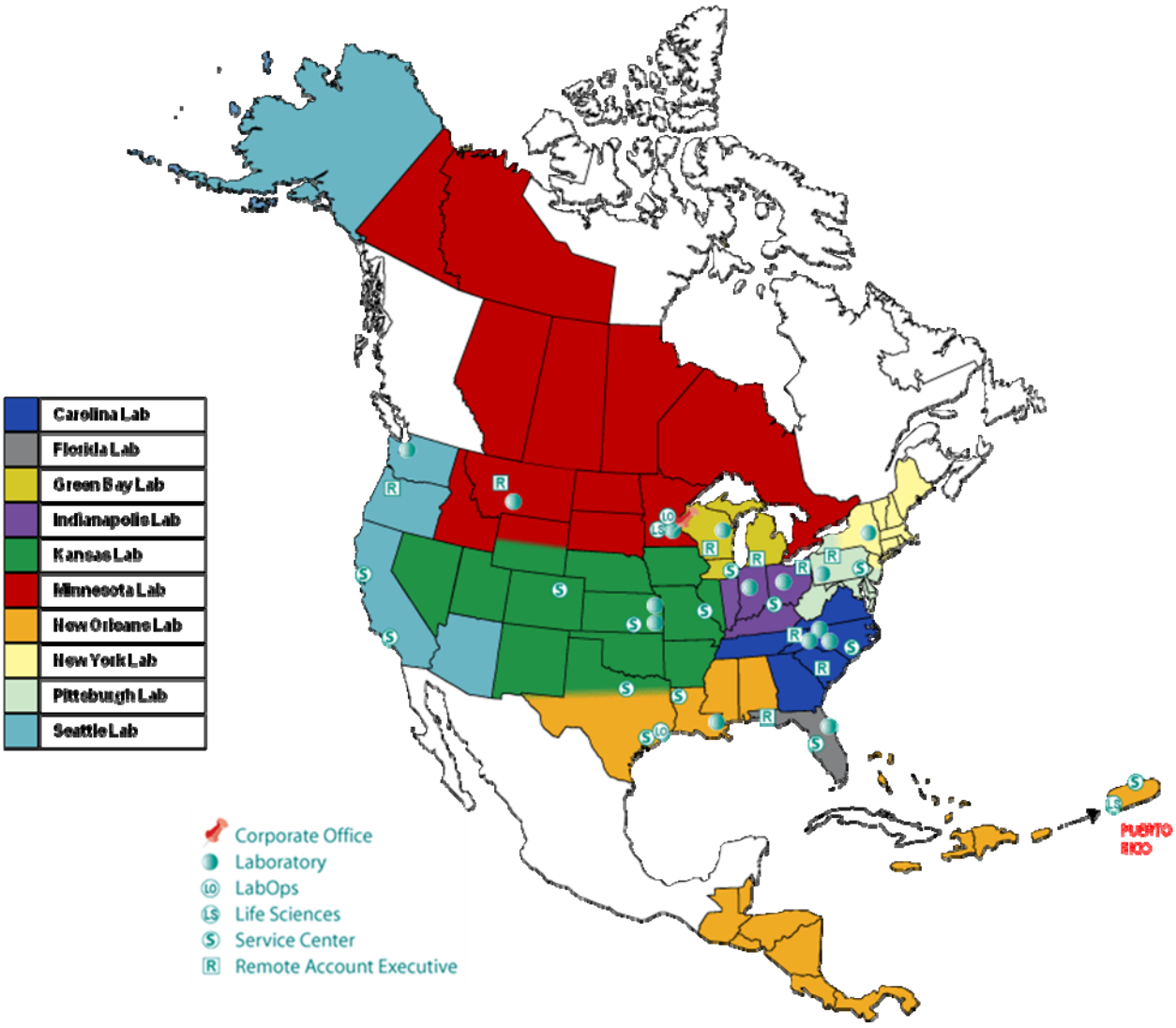
Richard Henson
DIRECTOR OF QUALITY ASSURANCE – ENVIRONMENTAL
Mr. Henson recently joined Pace Analytical. Rich has more than 25 years of experience at all levels of management and responsibility in environmental, analytical and industrial laboratories. He is presently responsible for the direction of Pace's Corporate Environmental Quality Assurance Program. He received a B.S. in chemistry form the University of California.

Cynthia Hansen
DIRECTOR OF QUALITY ASSURANCE – LIFE SCIENCES
Ms. Hansen joined Pace Analytical Life Sciences in 2006 and currently serves as the Director of Quality. Her current responsibilities include directing the activities of the Quality Assurance, IT, Sample Administration and Facilities staff as well as oversight of the San German QA activities. She has more than 18 years of experience in analytical chemistry laboratories, including 12 years in the FDA regulated industry. Cynthia holds an M.S. degree in Environmental Engineering and a B.S. degree in Chemistry.

Diane Dumer
DIRECTOR OF INFORMATION TECHNOLOGY
Ms. Dumer joined Pace Analytical in 2004. She has over 18 years of experience in the information technology industry. She currently serves as Director of Information Technology and is responsible for directing the activities of the information serviced team and the technologies supporting the entire company. She has received a B.A. in Quantitative Methods with Math minor from the College of St. Catherine in 1985.

LoAnn Grill
DIRECTOR OF HUMAN RESOURCES
Ms. Grill possesses 31 years of human resources experience. She joined Pace Analytical when it was formed in 1995 and currently serves as Director of Human Resources. As Director of Human Resources, Ms. Grill is responsible for administering human resources policies, programs and practices – including planning, organizing, developing, implementing, coordinating, and directing all phases of personnel activity.

8. Sales Team



Pace Sales Team

Our nationwide sales team consists of dedicated professionals who are responsive to the business needs of our clients for high quality, cost-effective analytical services. And what differentiates us from others is the level of personalized service and quality of care we offer our customers. We are committed to building long-term relationships with our clients. Total client satisfaction is rooted in the fabric of our corporate goals and business objectives.

Pace Technical Network

With laboratories and service centers around the country and certifications that cover all jurisdictions, Pace Analytical as made it convenient to access the services you need – *when you need them* and *where you need them*. Our sales staff can assist you regarding services, lab locations and turn-around times for your specific projects. The **Pace Technical Network** help desk can also assist you with any specialty analytical testing questions you might have. Please feel free to call this number: 1-877-722-3832.

APPENDIX B

SESCO Quality Management Plan - Revised

SESCO GROUP

Environmental Investigation & Remediation

QUALITY MANAGEMENT PLAN

KOKOMO DUMP SITE

1130 South Dixon Road
Kokomo, Indiana 46901
Site Spill Identification Number: C564
Administrative Settlement Agreement and Order on Consent for
Removal Action Docket Number V-W-13•C-018

Prepared For:

Environmental Protection Agency (U.S. EPA), Region 5
Ralph Metcalfe Federal Building
77 West Jackson Blvd
Chicago, IL 60604-3590

Prepared By:

SESCO Group
1426 West 29th Street
Indianapolis, IN 46208
Telephone (317) 347-9590
Facsimile (317) 347-9591

October 25, 2013

Table of Contents

I. ACCEPTANCE AND APPROVAL

New SESCO, Inc.
(SESCO Group)
1426 West 29th Street
Indianapolis, IN 46208

Darren Reese; President & CEO — Date 10/25/13

Brent Graves; Chief Operating Officer & Quality Assurance Manager — Date 10/25/13

William Pickard; Senior Project Manager — Date 10/25/13

Brad Adams; Project Manager — Date 10/25/13

II. NOTICE OF OWNERSHIP AND CONDITIONS OF USE

The Quality Management Plan reflects the commitment of New SESCO, Inc. (dba SESCO Group) to quality management principles and practices. This document is the property of SESCO Group and will be updated periodically as new concepts and practices are developed. Such revisions shall be effected by issuing new or revised sections to ensure uniform practices. Deviations to the enclosed information may be authorized, when appropriate, based upon warranted circumstances.

III. PURPOSE AND SCOPE

Purpose: This Quality Management Plan (QMP) identifies and describes the elements of a Quality Assurance/Quality Control (QA/QC) program integral to environmental cleanup activities. Individual Quality Assurance Project Plans (QAPPs) are prepared to cover the specifics of a given project. Each QAPP references the applicable sections of the QMP, and includes field-specific quality requirements for the individual tasks. This QMP is written as a management plan, and discusses quality requirements for environmental programs in a general perspective as specifically related to the scope of environmental remediation work.

This QMP also addresses quality requirements from a program/project management perspective, providing managers with QA/QC requirements needed to plan, implement, and assess environmental programs. It forms a set of fundamental requirements commensurate with the scope, nature, and complexity of environmental activities. Environmental activities covered by this QMP include environmental studies, feasibility studies, remedial investigations, records of decision, project planning, remedial design, remediation testing, remedial/removal actions, and site cleanup verification activities.

1. MANAGEMENT AND ORGANIZATION

Purpose: To document the overall policy, scope, applicability, and management responsibilities of SESCO Group's quality system.

SESCO Group believes that a strong QMP is vital to the success of any project. Existing and anticipated environmental decision-making objectives requires that a systematic process and structure be established for performed work activities that are consistent with established regulatory procedures or accepted practices, which results in data consistency and quality that decision makers must have if they are to have confidence in the data which supports their decisions.

SESCO Group maintains a QMP that provides a detailed description of QA/QC procedures for its work activities. These procedures address all aspects of our work that can potentially affect data quality and interpretation - including various field activities and procedures, sample collection and handling, calibration of instruments, decontamination procedures, record keeping, and statistical analysis of data and reporting.

SESCO Group follows Standard Operating Procedures (SOPs) in accordance with methods or procedures established by the United States Environmental Protection Agency, American Society of Testing and Materials, Indiana Department of Environmental Management, as well as accepted industry standards. Quality control procedures are documented and follow regulatory and/or accepted protocols. As a result of the quality of work and the data generated from those activities, SESCO Group is able to provide technically sound evaluations, interpretations, and project strategies of initial investigations through closure of complex projects.

The primary objective of the QMP is to ensure that all of the work activities performed, data generated, and data reported are scientifically valid and legally defensible. The content of the QMP is reviewed and revised on an annual basis and was prepared in accordance with (U.S. EPA Requirements for Quality Management Plans (QA/R-2), EPA/240/B-01/002 March 2001 Reissued May 2006), and American National Standard ANSI/ASQ E4-2004.

All of the operations performed by SESCO Group meet the following criteria:

- Methods and procedures follow the specifications and requirements of the appropriate regulatory agencies (U.S. EPA/ASTM/IDEM) or accepted industry standards.
- SOPs have been developed and are followed to ensure that the highest quality data is generated.
- All final reports are reviewed in order to meet our client's objectives and expectations with respect to quality and completeness.

1.1 Quality Assurance Manager

The Quality Assurance Manager (QA Manager) is responsible for all operations under this contract. The Quality Assurance Manager reports directly to SESCO Group Senior Management. The QA Manager's primary goal is to assure consistent quality of production by developing and enforcing health and safety procedures, validating processes, legal compliance, providing documentation,

managing staff, and oversight of dispute resolution. Responsibilities also include developing, maintaining, reviewing, and approving SOPs in accordance with company quality standards, establishing data packages, and maintaining QA/QC with subcontractors. The QA Manager is designated as the responsible authority for reviewing and approving technical documentation according to established quality standards.

The QA Manager's specific QA objectives are achieved as follows:

- Accomplishes quality assurance human resource objectives by coordinating training, assigning, scheduling, coaching, counseling, and disciplining employees; communicating job expectations; planning, monitoring, appraising, and reviewing job contributions; planning and reviewing compensation actions; enforcing policies and procedures.
- Achieves quality assurance operational objectives by contributing information and analysis to strategic plans and reviews; preparing and completing action plans; implementing production, productivity, quality, and customer-service standards; identifying and resolving problems; completing audits; determining system improvements; implementing change.
- Meets quality assurance financial objectives by estimating requirements; preparing an annual budget; scheduling expenditures; analyzing variances; initiating corrective actions.
- Develops quality assurance plans by conducting hazard analyses; identifying critical control points and preventive measures; establishing critical limits, monitoring procedures, corrective actions, and verification procedures; monitoring inventories.
- Validates quality processes by establishing product specifications and quality attributes; measuring production; documenting evidence; determining operational and performance qualification; writing and updating quality assurance procedures.
- Maintains and improves product quality by completing product, company, system, compliance, and surveillance audits; investigating customer complaints; collaborating with other members of management to develop new product and engineering designs, and manufacturing and training methods.
- Prepares quality documentation and reports by collecting, analyzing and summarizing information and trends including failed processes, stability studies, recalls, corrective actions, and re-validations.
- Updates job knowledge by studying trends in and developments in quality management; participating in educational opportunities; reading professional publications; maintaining personal networks; participating in professional organizations.
- Enhances department and organization reputation by ensuring that all are performing to the highest technical and ethical standards.

1.2 Dispute Resolution Process

When a dispute related to quality issues initially arises, the Project Team is responsible for creating a resolution plan, notifying the QA Manager of the instance and ultimately resolving the dispute. Any and all disputes are resolved within the Project Team are based on direction and guidance of the QA Manager; if disputes are not resolved by the Project Team, the QA Manager ultimately makes the final decisions based on quality policies, criteria and standards. The resolution plan will ultimately be

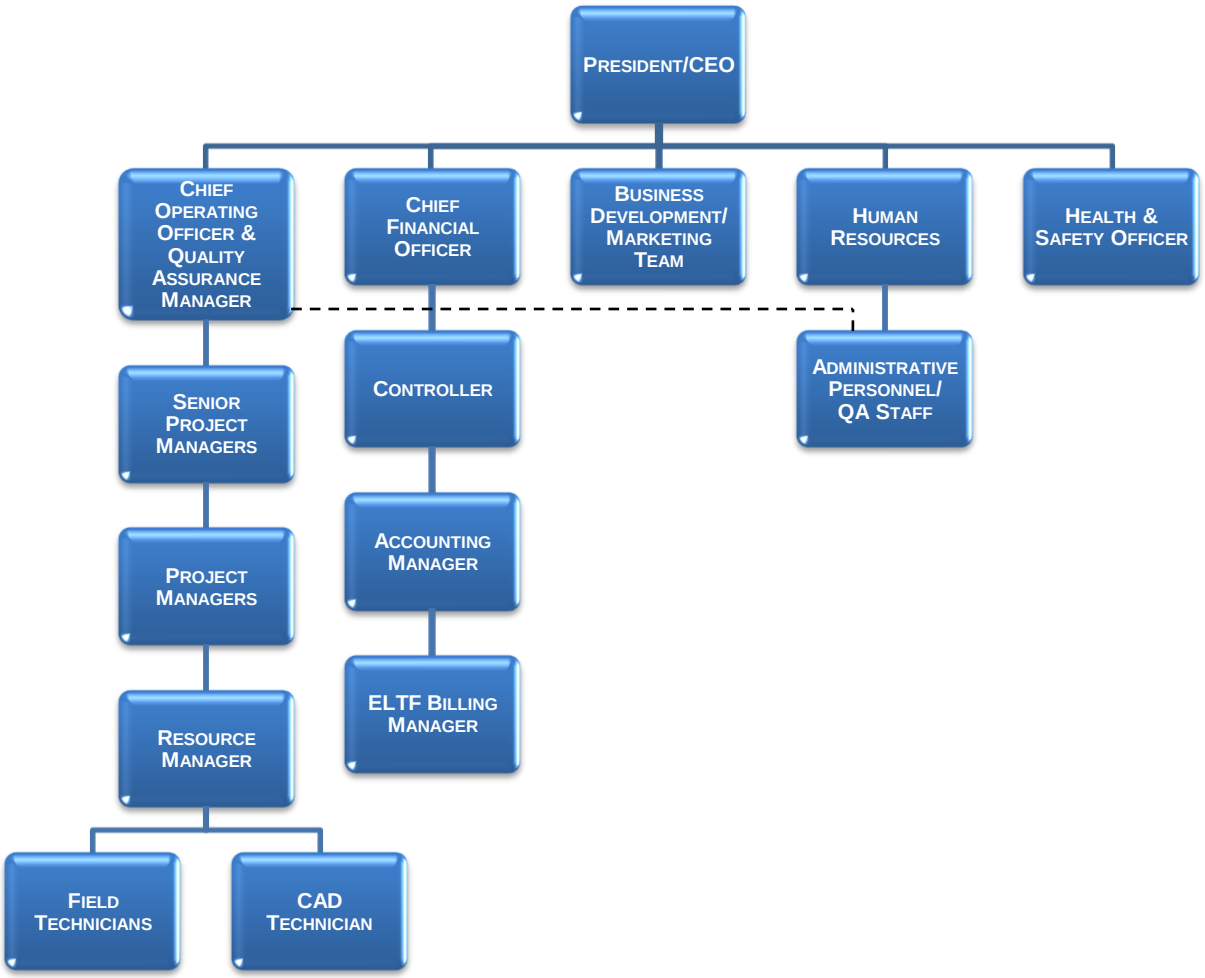
approved by the QA Manager and implemented by the Project Team according to quality standards and project timeline established during the project lifecycle.

1.3 Project and Task Authority

Specific project and task authorities are listed below:

- Field documentation is generated by Field Personnel
- Field documentation is reviewed by the Project Manager
- Laboratory data, once completed, is reviewed by the Project Manager
- SESCO Group personnel generate Tables and Figures
- Tables and Figures are reviewed by the Project Manager
- Draft report of field activities and results (investigation report) is generated by the Project Manager
- First review of draft report is reviewed by the Senior Project Manager
- Second review of draft report is reviewed by SESCO Group Employee (Project Manager status) not associated with the project (Independent Review)
- All geological and engineering data is reviewed by Professionally Licensed Individuals (Project Manager status or higher)
- Chief Operating Officer (COO)/QA Manager performs Independent Review of draft report as necessary
- Edits are discussed by Project Team
- Disputes are resolved within Project Team or based on direction of COO/QA Manager
- Edits are made to draft report by Project Staff
- Edits are reviewed for completion by someone other than the Editor
- Report review documentation is kept in file with Final Copy of report

2. ORGANIZATIONAL CHART



3. QUALITY SYSTEM COMPONENTS

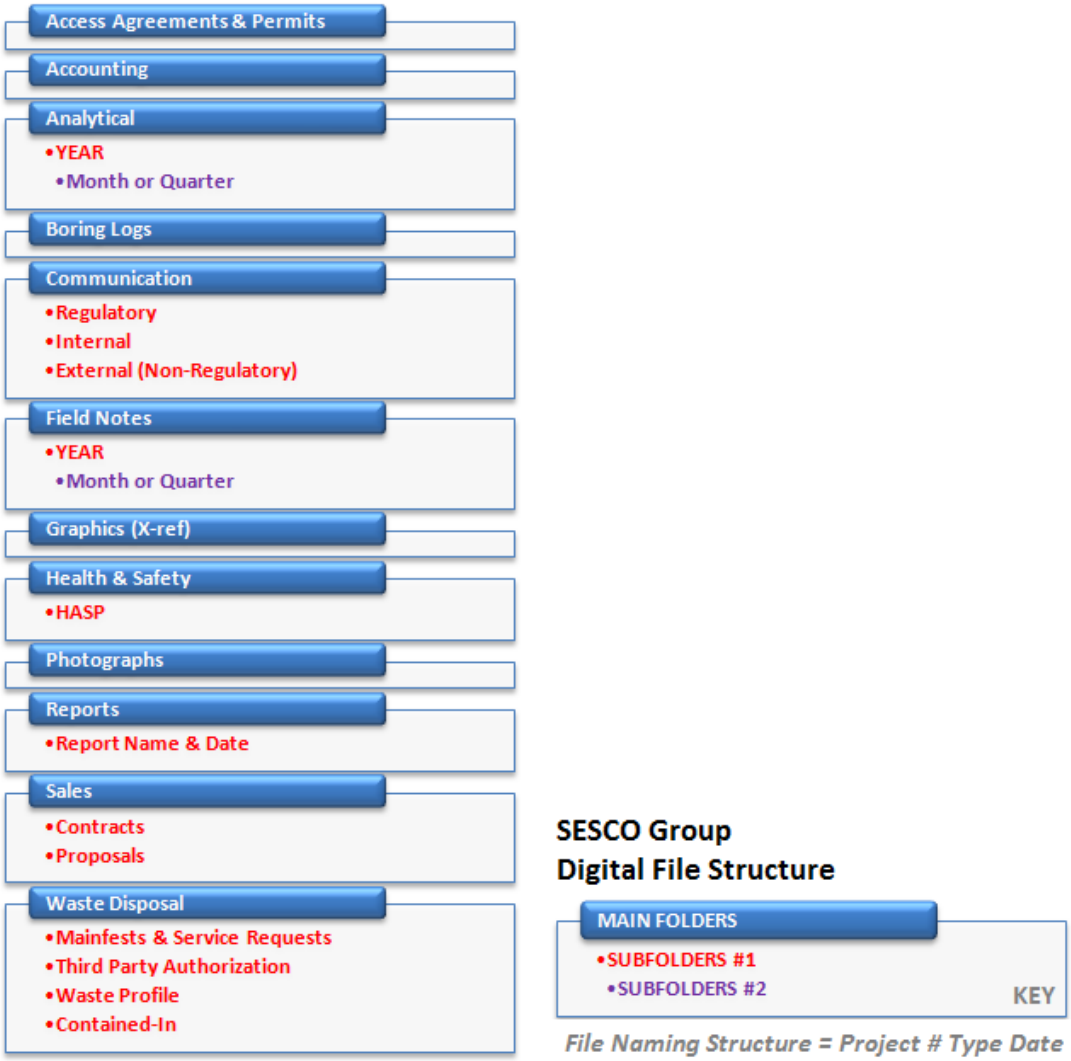
Purpose: To document how SESCO Group manages its quality system and defines the primary responsibilities for managing and implementing each component of the system.

3.1 Quality System Documentation

Quality system documentation consists of accurate client information stored in a confidential project folder. Data integrity is maintained for each project in Ajera© and MS Project©. Each legally defensible arrangement is in the form of contractual documentation that is stored in a confidential project folder. SESCO Group uses a single point of data entry to define accurate relations with the client and reduce duplicate information. To ensure external quality is met, the minimum qualifications of quality are met by subcontractors used by SESCO Group at all times.

3.2 Digital File Structure

To ensure the internal quality of documentation each confidential project folder adheres to a strict and uniform digital file structure as illustrated on the following page:



3.3 Annual Reviews and Planning

Annual reviews and planning qualifications are met throughout the lifecycle of active projects. There is ongoing oversight, direction, and review from Project Manager, Senior Project Manager, COO/QA Manger, and the Health & Safety Officer at SESCO Group. The QA Manager establishes a review timeline for each employee and each department in the company. Approximately one week before the review, the QA Manager along with Senior Management hold a meeting to review the quality, technical, and operational goals that had been set individually or department-wide and compare them to the actual accomplishments that have been made. Using the quality documentation system, quality management objectives, project goals, and technical document deadlines, the QA Manager and Upper Management grade and rank the individual or department based on quality review criteria and provide comments and feedback in a report form to be reviewed the following week with all necessary personnel. The individual review is conducted by the QA Manager, the employee being reviewed, and his/her direct supervisor, if not in the technical department. The

review is conducted, comments are explained, and new goals are set. If disciplinary action is necessary, the guidelines will be established and implemented by the direct supervisor under the guidance of the QA Manager. The department review is conducted by the QA Manager, the department being reviewed, and the director of the department and/or the CEO, if necessary. The review is conducted, comments are explained, and new goals are set. If disciplinary action is necessary, the guidelines will be established and implemented by the director of the department and/or CEO under the guidance of the QA Manager.

3.4 Management Assessments

Management assessment are met through collaborative analysis and the MTAs (Multidisciplinary Team Analysis) conducted by the Project Manager, Senior Project Manager, COO/QA Manager, and the Health & Safety Officer. This occurs at, is not limited to, key milestones throughout the project lifecycle. These assessments are scheduled throughout the project lifecycle and initiated by the COO/QA Manager. Collaborative analysis is done via 360 reviews by the Project Team and MTAs conducted by Senior Management. The management assessments are conducted in a formal meeting style including the Project Team, Senior Management, and the QA Manager who is also the conductor of the meeting.

3.5 Training

Training requirements are met through a number of quality components. Personnel performing work shall be trained and qualified based on job classification and project-specific requirements prior to the start of work as needed. The need to require formal qualification or certification of personnel performing certain specialized activities shall be evaluated and implemented where necessary. Appropriate technical and management training, which may include, but is not limited to classroom and on-the-job, shall be performed and documented. When job requirements change, the need for retraining to ensure continued satisfactory job proficiency shall be evaluated. Objective evidence of personnel job qualification shall be documented and maintained for the duration of the project or activity affected, or longer if required by statute or organization policy. The QA Manager is responsible for accurately planning trainings and assessing whether specific trainings are necessary for individual employees and/or departments based on project needs, legal standards, and quality system maintenance. The Project Team is responsible for maintaining their individual professional certifications and licenses under the supervision of the QA Manager. Documentation of training activities, certification renewal, and professional licensing shall be coordinated with and maintained by the Health & Safety Officer, as well as Senior Management. The training and certification records are kept in each employee's confidential employee file, in the company's certification and training electronic file folders, and the necessary documentation is kept in the confidential project folder due to specific project criteria and project-based documentation.

3.6 Systematic Planning of Projects

Systematic planning of project qualifications are met by the Project Manager, when he/she performs a detailed planning analysis of the Scope of Work (SOW), while the Senior Project Manager provides continual oversight of the analysis and lower level staff. The systematic process of planning begins

when the project is secured, then data is gathered and stored in accordance with the company's digital file structure, a scope of work is created by the Project Manager, and a conceptual site model starts being developed by the Project Team. The QA Manager is responsible for initiating the first meeting of the project and the Project Manager is responsible for project file folder updating and maintenance throughout the project lifecycle. The planning process model can be found in the 'Planning' section of the QMP and is used to ensure quality control and outline the responsibilities of the Project Team. The outflow produced is captured securely in MS Project and is kept in the secure project file folder.

3.7 Project Specific Quality Documentation and Data Assessments

Project-specific quality documentation is created during the initial stages of the project, secured by SESCO Group's records retention policy, and kept in discrete and confidential project folders throughout the lifecycle of the project. The QA Manager is responsible for review of project documentation relating to quality and the Project Manager is responsible for maintaining the information with continual oversight of the Senior Project Manager. Data assessment is completed based on established quality criteria to fit the project needs and is implemented by the entire Project Team throughout the lifecycle of the project. Project and data assessment qualifications are met by continual oversight of the Senior Project Manager and COO/QA Manager.

3.8 Quality System Tools

The list of the tools for implementing each component of the quality system include, but are not limited to the Company-wide QMP, the Project Specific QMP (as needed), and Quality Systems Audits, which are supervised by the ongoing review process of the Project Manager, Senior Project Manager, and COO/QA Manager. Training Plans are required by all SESCO Group staff on an as-needed basis in the Technical, Operations, and Health& Safety fields, and maintaining appropriate licenses (CHMM, LPG, PE) is required. SESCO's QA staff is responsible for preparing and making changes to all quality documentation, including the QMP under the guidance of the Project Team and supervision of the QA Manager. The QA Manager is designated as the responsible authority in the final reviewing and final approval of the QMP.

The QAPP (project-specific quality documentation) maintains all work performed is consistent with U.S. EPA guidance, standards, policies, and procedures. Data verification and validation (data assessments) are contained in SESCO Group's QA/QC process, which includes the SOW and specific data review to ensure that the proper analyses are performed, anomalies in data are flagged, and required laboratory documentation is completed. The QAPP was prepared in accordance with the U.S. EPA Requirements for QAPPs (QA/R-5), EPA/240/B-01/003 Reissued May 2006 and the UFP-QAPP Manual: Version 1 March 2005; EPA: EPA/505/B-04/900A and (Revised): Optimized UFP-QAPP Worksheets – March 2012.

4. PERSONNEL QUALIFICATION AND TRAINING

Purpose: To document the procedures and processes used by SESCO Group.

4.1 Quality Policy Statement

The Purpose of this chapter is to explain the processes used by SESCO Group to ensure that staff and managers working in environmental programs are trained and qualified to perform their required quality assurance responsibilities. This includes Field Staff, Technical Staff, Project Managers, Senior Project Managers, and the individuals who supervise these personnel.

4.2 Qualifications and Responsibilities

Responsibilities of SESCO Group management include, but are not limited to, ensuring that technical staff involved with collecting, analyzing, or managing environmental data have the necessary technical, quality assurance, and project management training required for their assigned tasks and responsibilities. Management is also responsible for ensuring that the technical staff maintains the necessary level of proficiency to effectively meet QA/QC responsibilities. The Standards Manager will serve as the company's resource for arranging for, assisting in, and defining QA/QC training needs on a regular basis to update technical staff with developing QA/QC issues.

4.3 Identification of Training Needs

The identification of training needs is met in the core training (SOPs) and will be coordinated through the SESCO Group Standards Manager in conjunction with management. Additional training of technical staff will be arranged when there is an identifiable need. The Standards Manager, in conjunction with management, will identify continuing professional training requirements and address those requirements utilizing internal and external resources for the latest technological advances and evolution in regulatory and industry standards.

4.4 Implementation and Documentation of Training

The implementation of training requirements at SESCO Group is conducted by technical and operational staff. Every employee is encouraged by management to rely and draw upon their educational background, experience, technical training, and on-the-job training to enhance their understanding and performance of QA related procedures.

The Standards Manager will develop and implement SOPs and/or internal training suited to meet the needs of technical staff with QA responsibilities:

- An orientation to Quality Assurance Management
- Establishing company and project-specific Data Quality Objectives
- Preparing QAPPs (as required)
- How to Perform Preliminary Data Review

The goal is to provide QA training to the SESCO Group technical staff that is responsible for QA functions. The Standards Manager may schedule impromptu QA training designed to address specific QA needs of the technical staff. The Standards Manager will maintain documentation and a record of all quality training completed by SESCO Group technical staff responsible for environmental data generation and evaluation. Management will provide resources for QA training for technical staff. This training will be provided, through internal training and/or external training, to staff at all levels to ensure that QA requirements and responsibilities are understood and implemented at all stages of projects.

5. PROCUREMENT OF ITEMS AND SERVICES

Purpose: To document SESCO Group's procedures for purchasing items and services that directly affect the quality of environmental programs.

The procurement of purchased items and services that directly affect the quality of environmental projects shall be planned and controlled to ensure that the quality of the items and services is known and documented, and meets the technical requirements and acceptance criteria of the customer.

5.1 Procurement Documentation

The primary procurement documentation will be a formal "Request For Proposal" (RFP), containing a Scope of Work (SOW), which clearly describes the item or service needed and the associated technical and quality requirements. The RFP shall specify the quality requirements and how those elements will be verified. The RFP will be developed by the PM and SPM to secure cost estimates for the needed items or service. The RFP will consist of the following:

- A detailed description of the SOW, type of project, and services needed from the subcontractor
- Disclosure of the level of necessary health and safety training and personal protective equipment (PPE) for Site workers
- Figures depicting the Site location, layout and Site improvements
- Site photographs will be included when available and/or necessary

The RFP document shall be reviewed for accuracy and completeness by the PM, SPM, and COO/QA Manager, prior to release or award as appropriate. In the event a subcontractor poses a question, which has not been covered in the RFP, an email will be sent to all subcontractors to clarify so that all companies have access to the same information. Changes to procurement documents shall be reviewed and approved by the PM, SPM, and COO/QA Manager. Once the RFP has been finalized, the PM or SPM will email all pre-selected vendors the RFP document. A due date will be established by the PM or SPM and all subcontractor bids will be expected to be received by the due date. The appropriate due date will take the magnitude of the SOW into consideration.

5.2 Review and Approval of Subcontractor Bids

Following receipt of a subcontractor bid, the PM, SPM, and COO/QA Manager will conduct a meeting to review the bids for accuracy and to ensure that all items of the RFP are satisfied. If a bid does not meet the minimum necessary requirements, the PM or SPM will contact the subcontractor to discuss the missing element(s) of the bid. An appropriate due date for a revised bid will be established by the PM or SPM, depending on the level of revisions needed.

Once it is determined that all bids meet the SOW requirements, the PM, SPM, and COO/QA Manager will discuss the bids and determine which subcontractor to award the work to. The PM will contact the SESCO Controller to determine if payment terms proposed by the subcontractor

are agreeable. A written authorization to proceed will be executed, scanned into a PDF document file format, and emailed to the subcontractor. Once the work is awarded, the PM will discuss the dates of potential Site work with the subcontractor.

5.3 Quality Assurance of Items and Services

Procured items and services are of applicable quality, including the review of objective evidence of quality for applicable items and services furnished by suppliers and subcontractors, source selection, source inspections, supplier audits, and examination of deliverables. Repeat business, past performance, prior knowledge of performance standards, work ability, and past experience with other contracted businesses helps SESCO Group ensure sustained quality when procuring items and services. Site audits, supplier audits, and subcontractor audits are also conducted by the PM and SPM, under the supervision of the QA Manager, to ensure quality standards are met. All procured items and services meet the minimum standard of quality at SESCO Group.

6. DOCUMENTS AND RECORDS

Purpose: To document appropriate controls for quality-related documents and records determined to be important to SESCO Group's mission.

Procedures shall be established, controlled, and maintained for preparing, reviewing, approving, revising, indexing, filing, storing, maintaining, retrieving, and final transmittal of pertinent quality documentation and records.

6.1 Identification

Documents requiring control shall be identified. Documents, including revisions, shall be reviewed by qualified personnel for conformance with technical requirements and quality system requirements and approved for release by authorized personnel. Documents used to perform work shall be kept current. Obsolete or superseded documents shall be discarded or identified as obsolete or superseded and measures shall be taken to prevent their use. All SESCO documentation is in compliance will all applicable, regulatory, and U.S. EPA requirements for documents and records.

6.2 Maintenance

Sufficient records shall be specified, prepared, reviewed, authenticated and maintained to reflect the achievement of the required quality. The maintenance of records shall include provisions for retention, protection, preservation, traceability, and retrievability.

6.3 Authorized Personnel and Chain of Custody

The roles, responsibilities, and authorities of personnel responsible for the documents and records of each project are contained within the Project Team with continual oversight of the QA Manager. Once the Project Team is established, those members are the only authorized personnel to have access to the confidential project folders along with Senior Management when necessary. The Project Manager is responsible for creating and maintaining the project files in accordance with SESCO's digital file structure. The Senior Project Manager and QA manager have access to the project folder and continually review documents based on technical, legal, and quality standards. Chain of Custody is established after the Project Team has been created based on the project needs and includes subcontractors if necessary for sampling documentation. The QA Manager is responsible for implementing the chain of custody and does so by continual oversight and meetings with the Project Team established in the project timeline. Confidentiality procedures are established and implemented by the entire Project Team throughout the project lifecycle. Evidentiary records are maintained by the QA Manager and are kept in accordance to the company's Record Retention Policy. Following closure of the project, the Project Team hands the authority of confidential information to the QA Manager who subsequently implements post project quality control procedures; which include utilizing the Record Retention Policy.

6.4 Retention

Retention times for records shall be determined based on contractual and statutory requirements or as specified by management. Records shall be protected from damage, loss, and deterioration. Ensuring that records and documents accurately reflect completed work is achieved by daily backup on SESCO Group's external server. Maintaining documents and records including transmittal, distribution, retention (including retention times), access, preservation (including protection from damage, loss, and deterioration), traceability, retrieval, removal of obsolete documentation, and disposition is also achieved by daily backup on an external server. All technical documents and records are in compliance with all applicable statutory, regulatory, and U.S. EPA requirements for documents and records.

6.5 Documents Requiring Control

The quality-related documents and records (both printed and electronic) requiring control include, but are not limited to technical related documents, invoices, and correspondence, which are controlled in a secure project file and continuously managed by the Project Manager, Senior Project Manager, and the COO/QA Manager throughout the project lifecycle. Specific quality documentation includes, but is not limited to technical reports, laboratory data, technical data, and quality plans i.e. QMP and QAPP. The QMP shall ensure compliance with U.S. EPA Order 2160 (EPA 1984) and EPA Directive 2100, Chapter 10 (EPA 1998).

6.6 Records Retention Policy Statement

SESCO Group's policy regarding the retention and disposal of paper and electronic company documents/records establishes and implements appropriate chain of custody and confidentiality procedures for evidentiary records. Company records shall be retained for a period of time consistent with U.S. EPA requirements. All hard copy and electronic draft documents will be destroyed after they have been finalized.

6.7 Documentation and Records Process

Preparing documentation and records is the responsibility of the Project Manager. The product of each project is a technical report. Throughout the project lifecycle there could be one report or many reports depending on the type of project and project needs. Field personnel prepare field documentation, subcontractor scientists prepare laboratory data, engineering professionals prepare engineering data, CAD technicians prepare figures, and QA staff prepares tables, but it is ultimately the Project Manager's responsibility to compile and prepare the project documentation, maintain the project files, and produce the technical reports.

- Generated by Project Manager

Reviewing documentation and records is the responsibility of the Project Team with continual oversight by the QA Manager. Throughout the project lifecycle there are many scheduled team meetings in which the PM, SPM, and other team members review documentation based on project requirements, quality standards, and project goals. Utilizing SESCO's digital file structure, each

project is managed in a uniform way to ensure quality and accuracy of documentation. If documentation or records are ever deemed obsolete, it is the responsibility of the Project Team to remove the information from the project, but keep it confidential by abiding by SESCO's records retention policy and confidentiality procedures.

- Reviewed by Project Team

Approving documentation and records is the responsibility of the senior Project Manager and the QA Manager. Each document, record, and project must have a document review form attached to the draft version to ensure proper review has taken place and to record signatures of the authorized person's signatures of approval. Each project must be signed and dated by the Project Manager and senior Project Manager. Each document review form must be signed by the Project Manager, senior Project Manager, and the QA Manager to ensure quality standards are being met and report documentation procedures are being followed by the Project Team.

- Approval issued by Senior Project Manager
- Final approval issued by the QA Manager

Issuing documentation and records is the responsibility of the individual or department that generated that document or record. SESCO generated documentation is issued by the Project Team, field documentation is issued by field personnel and is then combined and issued by the Project Manager. Quality documentation is issued and implemented by the QA Manager.

- Issued by responsible party in which the document and/or record was generated

Using documentation and records is the responsibility of the Project Manager. All project documentation is utilized by the Project Manager by compilation and interpretation into final technical reports. Each member of the Project Team is authorized to use project documentation and records when necessary throughout the project lifecycle in accordance with project needs and legal standards. Utilization of project documentation and records is limited to authorized personnel to ensure quality standards of content in each project file.

- Utilization by Project Team

Revising documentation and records is primarily the responsibility of the Project Team and QA Manager. Edits and revisions are done by the Project Team, QA staff, COO/QA MANAGER if necessary. Edits and revisions are provided to the Project Manager via written and electronic edits to documentation and are updated solely by the Project Manager. Draft versions, duplicate copies, and expired documentation and/or records are disposed of according to SESCO's records retention policy with continual oversight by the QA Manager and Project Team throughout the lifecycle of the project to achieve quality standards.

- Project Team, QA staff, and QA Manager is responsible for revisions
- Revisions implemented by the Project Manager

6.8 Report Review Process

Field Documentation is created by field personnel onsite and in the office. This information is based on surveys, testing, and other site related activities that are relevant to the project. The Project Manager is responsible for reviewing this information and incorporating it into the technical report. The QA Manager is responsible for final review and accuracy of information represented.

- Generated by Field Personnel
- Reviewed by Project Manager

Laboratory Data is generated by subcontracted scientists using the information and samples gathered by SESCO field personnel. The information is compiled and delivered to the Project Manager. The Project Manager is responsible for reviewing this information and incorporating it into the technical report. The QA Manager is responsible for final review and accuracy of information represented.

- Generated and completed by Scientists
- Reviewed by Project Manager

Tables and Figures are generated by SESCO QA staff under the direction of the Project Manager. The Project Manager is responsible for reviewing and editing the tables and figures and creating the investigation report draft version which includes a draft of field activities and results. The first draft of the technical report is reviewed by the Senior Project Manager and an independent review of the draft is done by a QA staff member. If necessary, the COO/QA MANAGER will review the report and is responsible for final approval of the quality of the draft version.

- Generated by SESCO Group Personnel
- Reviewed by Project Manager
- Investigation Report Draft
- Draft of field activities and results generated by Project Manager
- First Draft reviewed by Senior Project Manager
- Independent Review by SESCO Group Employee
- COO/QA MANAGER performs independent review (*if necessary*)

Edits are discussed by the Project Team during Project Team meetings throughout the lifecycle of the project. The Project Manager is responsible for the initial creation of the report and making edits based on feedback by the Project Team, QA Manager, and QA staff. Edits are then reviewed by QA staff and approved by the QA Manager. The senior Project Manager is responsible for reviewing all edits to the technical report and signing off on the document review form. Editorial disputes are handled like all other disputes; the Project Team is responsible for resolving the disputes under the direction of the senior Project Manager and the QA Manager.

- Edits are discussed by Project Team
- Edits are made to the draft report
- Edits are reviewed for completion by independent SESCO Group Employee
- Disputes are resolved within Project Team, based on direction of the COO/QA Manager

Technical Data must be reviewed by licensed professionals in order to ensure quality standards are consistently being met throughout the project lifecycle. Geological data that is produced during field activities and scientific testing of samples by contractors must be reviewed by a licensed professional geologist. Engineering data that is produced during field activities and engineering documentation created by CAD drafting personnel must be reviewed by a licensed professional engineer. The Project Manager is responsible for incorporating edits made by licensed professionals into the final report.

- Geological data reviewed by Licensed Professional Geologist (LPG)

- Engineering data reviewed by Licensed Professional Engineer (LPE)

Final Report is completed by the Project Manager under the supervision of the senior Project Manager and QA Manager after edits have been completed and reviewed by all necessary personnel. Review documentation is kept in confidential project file folder and adheres to SESCO's record retention policy. After the document has been submitted to the appropriate legal authority and clientele, the draft versions are destroyed and only the final version is kept in the secure project file folder which adheres to SESCO's digital file structure to ensure that quality standards are being met and work reflects actual work that has been completed.

- Final Report Completion
- Final Report Submittal
- Report review documentation is kept in secure project file
- Copy of final report kept in secure project file
- All draft versions shredded (hard copies) or deleted (electronic copies)

6.9 Digital Document File Structure

SESCO Group has in place a digital file structure to ensure the internal quality of documentation each confidential project folder adheres to a strict, uniform and organized file structure as seen in the 'Quality System Components' section of the QMP. This file structure is in place also to ensure that records and documents accurately reflect completed work. After a report has been reviewed, finalized and signed, the draft versions are then shredded (hard copies) or deleted (electronic copies) and the project files are updated to accurately reflect completed work. The Senior Project Manager and QA Manager continually oversee and review completed work and draft work in the project file to ensure quality standards are being met and goals are being accomplished according to the project timeline.

6.10 Removal of Obsolete Documentation

Project files are transferred to archives once No further Action (NFA) notification has been issued for the site and then adhere to SESCO's Record Retention Policy from then on. This ensures that project files are being updated in accordance with SESCO's quality assurance system for documents and records and reflects actual completed work. Reviews and Project Team meetings are conducted throughout the lifecycle of the project to assess completed work and determine if obsolete documentation needs to be removed from the project file. Once a document has been labeled obsolete by the Project Team, it is then removed from the project file and stored in a sub-folder of the project and is kept in accordance with SESCO's Record Retention Policy. The Project Manager is primarily responsible for identifying obsolete information and reporting it to the Project Team at the next scheduled project meeting. The QA Manager ultimately approves the removal of obsolete documentation once a decision has been made by the Project Team to ensure quality standards are being met for the project.

7. COMPUTER HARDWARE AND SOFTWARE

Purpose: To document how SESCO Group will ensure that computer hardware and software quality requirements are continually met.

7.1 Identification

The Technical, Accounting, and Administrative Staff at SESCO Group establish computer system hardware and software standards as a team. Senior Management approves all hardware and software acquisitions. Minimum standards for hardware and software compatibility requirements are presented in this QMP. Hardware includes network servers and disk drives, electrical components, personal computers, and printers. Computer programs are synonymous with software. Computer programs addressed by this QMP include, but are not limited to, design, design analysis, models of environmental processes and conditions, operations or process control, and databases. Computer programs not addressed by this QMP include, but are not limited to, nontechnical software such as word processing applications. The process for identifying necessary and needed software packages and updates is determined in team meetings and monthly meetings with a representative from IndyIT, SESCO's technical subcontractor and IT resource.

7.2 Maintenance

Planning, developing, implementing, installing, testing and documenting of computer hardware and software is maintained through a secure remote agent combined with on-site support provided by Indy IT Professionals. There is a constant monitor to ensure that needed server, systems and applications are functional at all times. In the event of failure, redundancies are in place to prevent fallout and IT staff is notified immediately. Network access is strictly controlled through WSA2/TKIP wireless access, and a Microsoft Windows Server domain controller. External protection is provided by Sonicwall Firewall with port control, content and packet filtering. Hardware and software are monitored at all times to ensure latest functional and security patches are installed in a timely manner. Managed anti-virus through Kaspersky is monitored 24-hours a day by Indy IT Professionals.

7.3 Records

The QA records generated through implementation of the requirements of this section of the QMP include records documenting acceptance of computer hardware and software, inventories of computer-related hardware and equipment and verifications of internally developed computer programs. Computer software covered by this requirement includes, but is not limited to, design, data handling, data analysis, modeling of environmental processes and conditions, operations, or process control of environmental technology system (including automated data acquisition and laboratory instrumentation), data-bases containing environmental data. The documentation that is created throughout the computer hardware and software processes and all email communication between SESCO staff and IndyIT representatives is kept according to SESCO's record retention policy. QA staff, technical, accounting, and administrative personnel is responsible for cataloging these documents and records in accordance with SESCO's quality standards.

7.4 Desktop and Notebook Units

Any desk top system purchased by SESCO Group should be configured, at a minimum, as follows: 2 GB RAM, 60 GB hard disk, Windows 7 Professional, 10/100/1000 network card, DVD-ROM, 17" or larger monitor. Systems purchased should be in the Dell product family. Exceptions must be approved by the COO/QA Manager or CEO.

7.5 Laptop Units

The minimum laptop (notebook) configuration purchased by any SESCO Group associate or program should be configured—at a minimum-- as follows: 2 GB RAM, 60 GB hard disk, Windows 7 Professional, 10/100/1000 network card, DVD-ROM, 17" or larger monitor. Systems purchased should be in the Dell product family. Exceptions must be approved by the COO/QA Manager or CEO.

7.6 Printer Standards

Any printer purchased within SESCO Group must be in the Hewlett-Packard product family or closely compatible. Any exceptions must be approved in writing or email by the COO/QA Manager or CEO.

7.7 Software Installations

Most software installations are generally completed without installation and configuration problems. However, instances do occur where software is installed that impacts the working capability of the computer because of inappropriate installation configuration or conflicts with software already installed on the computer. In addition, there are standards and licensing issues that SESCO Group is responsible for meeting. Therefore, any software installations must be approved through the COO/QA Manager or CEO before installation, and usually be installed by Computer Support (IndyIT/Technical Staff). The installation process begins after software has been identified by SESCO staff, approved by CEO or COO/QA Manager, IndyIT has been notified of new software, network compatibility has been compared, and SESCO staff schedule time to run the installation. Depending on the software, the employee installing the new software needs to set aside appropriate installation time and have an IndyIT representative on the phone to ensure successful installation and compatibility with the company's network and system. If an IndyIT representative cannot be present over the phone, email communication needs to be established by the staff installing the program and the representative to negotiate problems as they occur, or to combat issues after installation.

7.8 Software Development Standards: Selection of Database Platform

If the application will involve five or fewer persons within a work group, the data should be stored in a Microsoft Access database. If the database will reside on a file server, then the database installation must be coordinated with the Indy IT Professionals staff. If the application is to be used

by more than five (5) persons, then that application should be stored in a SQL Server instance or Filemaker server database. (Exceptions: Computer systems that have existed prior to July 1, 1998 will be permitted to continue using database platforms currently supported. Any substantial rewrites or redefinitions of database functionality should support either SQL or Filemaker as previously indicated.)

Client applications are any applications that permit new data entry or modification of data that are stored in databases. Client applications should be written using one of the following tools: PHP, ASP, Filemaker, MS Access or MS Visual Studio. Exceptions to these development environments may be made depending on the requirements of the application. Contact the COO/QA MANAGER for approval prior to deviating from an approved development tool. All software development accessing the SESCO Group database must be certified and approved by the COO/QA MANAGER. (Exceptions: Client applications that support commercial software and are not developed expressly for a program or work group and software mandated for use by some external agency such as U.S. EPA is exempted from the requirements stated above. In the event of a substantial rewrite of a system application, the client software should be written using one of the approved programming tools.)

7.9 Contract Software

Software that is contracted for development should support one of the approved databases and the contract must be approved and certified by the COO/QA MANAGER or CEO. Client software should be written using one of the approved tools, and where possible, the software should be purchased with rights to the programming code.

7.10 Web Pages and Web-based Data Access

IndyIT Professionals staff supports efforts to provide information including database access via the web. The COO/QA Manager and upper levels of Management must be consulted with respect to any significant web-based development efforts.

7.11 Web Browser Software

All associates are required to run Microsoft Internet Explorer as the web browser software.

8. PLANNING

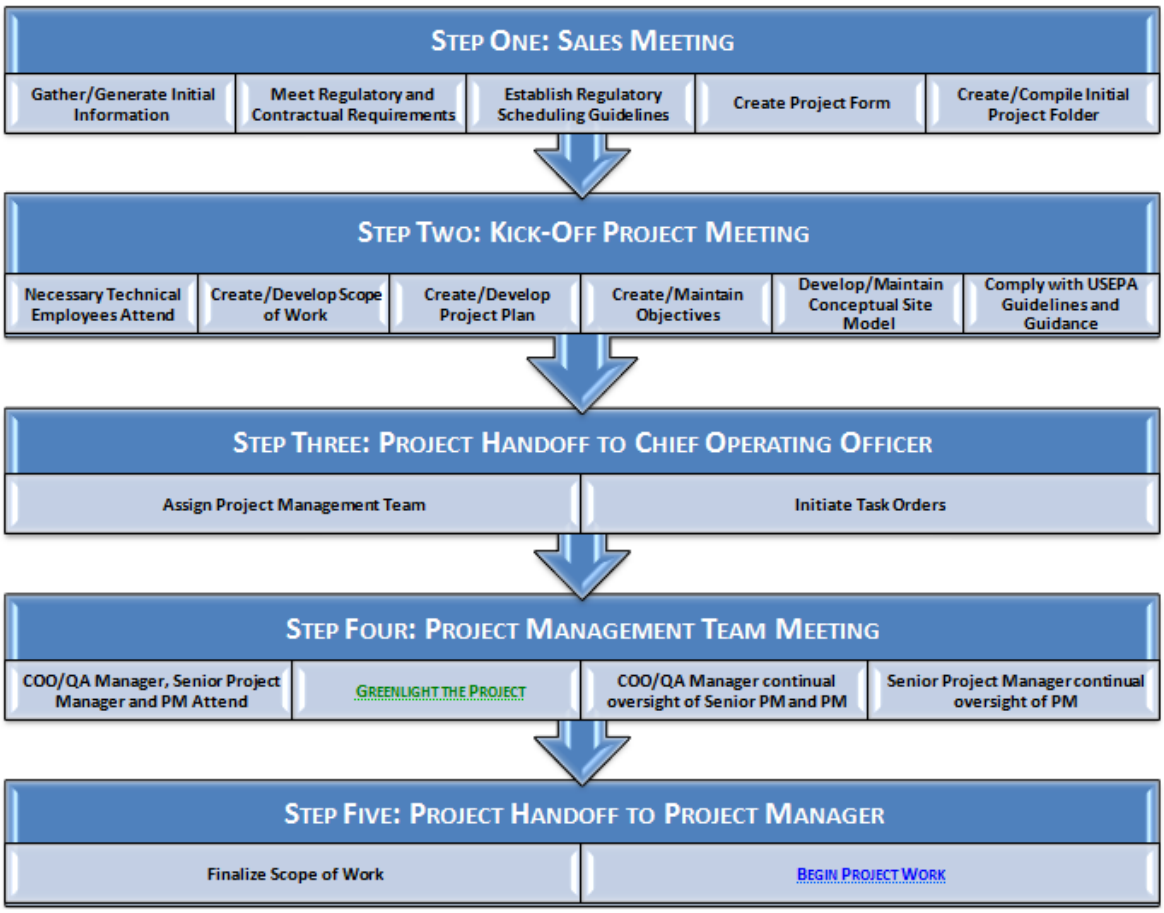
Purpose: To document how individual data operations will be planned within SESCO Group to ensure that data or information collected are of the needed and expected quality for their desired use.

8.1 Planning Objectives

A systematic planning process shall be established, implemented, controlled, and documented as necessary to accomplish the following:

- Identify the customer and their needs and expectations for the results of the work to be performed
- Identify the technical and quality goals that meet the needs and expectations of the customer
- Translate the technical and quality goals into requirement documents (e.g., specifications, work plans) that will produce the desired result

8.2 Process Model



8.3 Documentation

All planning documentation shall be reviewed and approved for implementation by authorized personnel before the specific work begins. SESCO Group plans environmental data operations using a systematic planning process which includes: The identification and involvement of the Project Manager, sponsoring organization and responsible official, project personnel, stakeholders, scientific experts, etc.

8.4 Scope of Work

The Project Manager puts together the SOW including the identification of project schedule, resources, budget, milestones, and any applicable regulatory/contractual requirements. The Work Plan and SOW includes a description of the project goal, objectives, questions, and issues, a description of how, when, and where the data will be obtained (including existing data) and identification of any constraints on data collection. This also includes a description of how the acquired data will be analyzed (either in the field or the laboratory), evaluated (i.e., QA review, verification, validation), and assessed against its intended use and the quality performance criteria.

8.5 Data Identification and Specification

The identification of the type and quantity of data needed and how the data will be used to support the project's objectives is included in the conceptual site model and SOW. The specification of performance criteria for measuring quality is exemplified in documents and criteria that meet minimum level quality standards along with following IDEM and U.S. EPA Guidance Documents. The specification of needed QA and QC activities to assess the quality performance criteria (e.g., QC samples for the field and laboratory, audits, technical assessments, performance evaluations, etc.) is exemplified with IDEM and U.S. EPA Guidance in accordance with minimum standards of quality. Stakeholder input is used as a tool to ensure the quality of data.

8.6 Data Quality Objectives

SESCO Group's process of evaluating and qualifying data collected for other purposes or from other sources, including the application of any statistical methods, for a new use meets minimum levels of quality standards. Any site data that meets minimum quality standards may be utilized to evaluate site conditions and remedial project goals. This data will be evaluated against Data Quality Objectives and relevance to project goals per the U.S. EPA *Guidance on Systematic Planning Using the Data Quality Objectives Process (EPA QA/G-4)*

8.7 QAPP Development and Maintenance

A QAPP meeting U.S. EPA *Requirements for Quality Assurance Project Plans (EPA QA/R-5)* and utilizing the *Uniform Federal Policy for Quality Assurance Project Plans (UFP-QAPP)* will be developed and maintained for every project. The QAPP will be developed, reviewed, and approved by the project management team, including the Project Manager, Senior Project Manager, and COO/QA Manager,

at a minimum. Review of the QAPP will occur prior to each phase of work to be completed, and revised, if necessary. All revisions will be approved by the project management team. In addition, all revisions to the QAPP must be reviewed and approved by the U.S. EPA.

9. IMPLEMENTATION OF WORK PROCESSES

Purpose: To document how work processes will be implemented within SESCO Group to ensure that data or information collected are of the needed and expected quality for their desired use.

9.1 Requirements and Instructions

The basic requirements for controlling work processes and operations are discussed below:

- Planning for quality is conducted according to a graded approach by addressing the nature, complexity, and SOW to be performed. The graded approach defines the extent and degree of the level of quality applied to work activities.
- For characterization of environmental processes and conditions, planning includes a determination of the level, type, quantity and quality of data required.
- For engineered environmental systems, planning includes a determination of the appropriate design criteria and design bases. Planning considers any specially controlled conditions required to ensure that objectives are satisfactorily achieved.
- Work is performed according to approved Work Plans, Drawings and Specifications, SOPs, QMP, QAPPs, and other applicable documents or procedures.
- Work is implemented in a sequence consistent with the need for completion of prerequisites as well as final operations.
- Plans are developed and implemented for appropriate routine and standard work operations. Specialized and/or critical operations may use project-specific documents to perform work operations.
- Management assessments of work processes and operations are accomplished through self-assessments and independent assessments.

9.2 Responsibilities and Authorities

Project Managers are responsible to plan, document, and assess work processes. Managers must identify applicable basic contract and task order quality requirements, program and task expectations, and the project SOW during the work planning process. This planning process occurs before and during the initiation of individual task orders. Responsible managers must establish policies and procedures to address identification of routine operations requiring plans; preparation of plans including form, content, and applicability; and documented approval of plans.

The Senior Project Managers and Senior Management are responsible for performing self-assessments of compliance and effectiveness of work processes under their control. The QA staff is responsible for performing independent assessments of all work processes impacting quality as directed by Senior Management. Subcontractor personnel are required to perform work according to approved documents.

9.3 Processes for Ensuring Work Follows Planning and Technical Documents

Just as SESCO Group has processes in place for planning work, it also has a process in place for ensuring that planned work is performed according to the approved QAPP or SOPs. Work planned by the company must follow either: 1) a QAPP, which requires subsequent data verification and validation or 2) an SOP, which is developed using the collective knowledge and experience of the work group and its managers and used in conjunction with written policies to complete a work product that is reviewed by the Company's chain-of-command.

9.4 Work Done Using QAPPs

Data collected or generated as a result of planning done as part of a QAPP, requires verification and validation. Verification ensures that the data was collected following the plan established in the QAPP and validation ensures the data gathered is appropriate for the intended use. Results produced using a QAPP generally are used to support permit, compliance, enforcement, or remediation-related decisions.

For sub-contracted services that involve the collection or analysis of verifiable environmental data, the company requires that the program overseeing the contract either develop a QAPP for the contractor, or require the contractor to develop a QAPP as part of the contract.

9.5 Work Done Using SOPs

To ensure that each project SESCO Group produces is completed quickly, consistently, predictably, and as fairly as is possible, requires that it standardize its decision-making process. SOPs always include certain steps at which some decision-based or decision-making criteria established by management and documented in policy, must be made. SOPs also ensure that the decision-making itself is standardized to the extent possible.

9.6 SOP Process and Preparation

SOPs are written by individuals who have expertise in the particular subject at hand. SOPs are initially drafted as bullet point memorandums from a small work group of experienced professionals. The initial draft is then submitted to an independent work group for review. Each work group is headed by a Senior Project Manager with several years of experience and includes at least one individual who will potentially use the SOP. Following independent review, revisions are included and a final SOP is completed.

Per the U.S. EPA *Guidance for Preparing SOPs (EPA QA/G-6)*, SOPs are written with sufficient detail so that someone with limited experience with or knowledge of the procedure, but with a basic understanding, can successfully reproduce the procedure when unsupervised. The experience requirement for performing an activity is noted in the section on personnel qualifications. For example, if a basic chemistry or biological course experience or additional training is required that requirement should be indicated.

When staff is developing SOPs, they also will be identifying the parameters of a decision that must be made based on decision-making criteria established by management. SESCO Group uses written SOPs and written policies to standardize its work processes.

SESCO Group has in place an ongoing effort to revise and improve existing SOPs, as well as to develop additional SOPs for use by each area of environmental activity. Its efforts to improve and expand its use of SOPs will:

- Promote efficiency & consistency;
- Help staff avoid known pitfalls;
- Make it easier to train new employees;
- Make it easier to track down the cause of a problem;
- Allow staff to develop the "best known method" for doing something and ensure that method is documented, shared, used consistently, and continually refined.

9.7 SOP Development and Use

SESCO Group has put into place a required initiative to promote the further identification of routine operations needing approved process planning (SOPs). SESCO has required that each project that implements a discrete environmental activity not performed by another section submit to the Health and Safety Officer a prioritized list of SOPs and policies that need to be updated or developed.

Company managers and executive staff recommend that each section develop an environmental activities list that identifies all the activities it performs, and then build a list of SOPs needed for each activity. They further recommended that the list be prioritized based on:

- Extent of existing policy documentation;
- Extent and quality of existing SOP documentation;
- Procedural gaps revealed through flowcharting that identify the need for a particular SOP(s) or written policy(s);
- Staff input based on past experience ;
- Anticipated impact to work product and/or customer; and,
- Whether the process has characteristics that make it important to control.

It also is recommended in the SOP training that staff developing SOPs or policies to fill existing gaps in work processes start by focusing on easier routine processes to establish expertise and confidence, before trying to develop more complex SOPs.

9.8 Handling of SOPs, QAPPs, and other Technical Documents

Development: SESCO Group's Policy, SOPs, and QAPP Documentation Policy establish development and content requirements associated with both QAPPs and SOPs. It also establishes

content requirements for documenting policies used in conjunction with SOPs to produce the principle work products.

9.9 Review and Approval

SESCO Group's chain-of-review and approval process relies on the expertise and experience of the Project Managers, Senior Project Managers, COO/QA MANAGER, Health and Safety Officer and Senior Management. SOPs are reviewed by senior personnel with sufficient experience or appropriate training with the process. In the event senior personnel lack the experience or training, an appropriate individual within the organization conducts final review and approval. Draft SOPs are tested and revised, if necessary. Finalized SOPs are approved by the COO/QA Manager. That same chain-of-review is incorporated into the Policy, SOP, and QAPP Documentation Policy, which addresses the review and approval processes associated with policies, SOPs, and QAPPs. That policy also identifies which staff shall participate in the review and approval process for policies, SOPs, or QAPPs, and who shall sign these company QA documents. Company QA documents are signed by the COO/QA Manager.

9.10 Frequency of Revisions and Reviews

SOPs will be revised and re-approved when an industry-wide technological advancement is developed or when a procedural improvement is noted. SOPs will be systematically reviewed on at least an annual basis, and the review date will be added. If the SOP describes a process that is no longer followed, it will be withdrawn from the current file and archived. Maintenance of current SOPs shall be the responsibility of the QA Manager in concert with technical staff, as directed.

9.11 Change

QAPPs must be revised before the scope, parameters, or method of a data collection activity may be changed. Similarly, Project Managers executing a QAPP are responsible for identifying, and reporting to their Senior Project Manager and COO/QA Manager, any discrepancies between the written steps of a process in a QAPP and the actual steps taken to do the process. Revisions to the QAPP must be reviewed and approved by the U.S. EPA.

9.12 Usage

All procedures shall be developed, documented, and implemented for appropriate routine, standardized, special, or critical operations. The work process will be continuously monitored throughout the project lifecycle by the Project Manager, Senior Project Manager, COO/QA MANAGER, and the Health and Safety Officer in order to meet the expected standards of Quality.

9.13 Expectations

With company-wide access to all quality system documents (SOPs, QAPPs, policies and other related documents), comes the expectation that all SESCO Group staff shall use the appropriate quality system documents whenever applicable. Further, all quality system documents shall be available upon request to the public unless there is an overriding issue of confidentiality.

10. ASSESSMENT AND RESPONSE

Purpose: To document how SESCO Group will determine the suitability and effectiveness of the implemented quality system and the quality performance of the environmental programs to which the quality system applies.

10.1 Assessment Tools

The tools used to assess SESCO Group's quality system include, but are not limited to: quality systems audits; MTAs; technical reviews; performance evaluations; data quality assessments; and technical systems audits.

10.2 Qualified Personnel

Personnel conducting quality system assessments have: 1) a technical understanding of quality system features and requirements; 2) no involvement in the program being assessed; 3) adequate organizational freedom to access program components; and, 4) a commitment from management to review and act on assessment findings.

10.3 Multidisciplinary Team Analysis (MTA)

MTA is simply the use of technical and regulatory specialists, operating in a team analysis setting, for the purpose of aiding Project Managers in decision making. The MTA is an efficient means of infusing a very high level of current technical and regulatory knowledge into each project and person we have. The ultimate purpose of the MTA is to allow the staff of SESCO Group to create a group effort that will work in unison in order to find the most cost-effective solution and defensible next steps for our projects. The exchange of knowledge and ideas are beneficial in order to strengthen each participant as well as maximize efforts put forth to achieve closure.

- Attendees for the MTA meeting will consist of the Project Team (SPM and PM), other SESCO Group staff with expertise in a project required discipline, other non-SESCO Group technical or legal experts, as needed, and one other SESCO Group Technical Staff member not involved in the project to provide unbiased input.

- At a minimum, MTAs will occur at, but not limited to, these project milestones:
    - When the site is first placed in the SESCO Group system: The MTA at this point is used to determine the optimal site characterization approach. The right set of tools from the SESCO Group toolbox needs to be determined in a brief MTA meeting
    - After initial site characterization is completed: The MTA will strengthen decisions or choices of the Project Manager's interpretations of data to limit second guessing
    - After delineation is completed but before remediation: A review will take place to answer rapidly changing issues in the environmental field
    - When the site is ready to close or a closure path should be decided: It is important that closures have solid lines of evidence backed by the whole team as legal and regulatory options may have changed

- MTAs for simple sites will be brief. The PM and their management, will determine the size or complexity of a site and the appropriate level of MTA response.

- The priority site selection for MTA review is:
  - New Sites with no characterization work done by SESCO Group or any other consultant
  - Sites currently in our system and in progress
  - Sites where remediation is anticipated and/or a completion date has been promised
  - Problem sites (current sites with significant legal, technical or political conflicts)
  - All others

- Project Managers will be responsible to have a firm grasp of political, stakeholder and/or management complications and provide the following materials for meeting participants if available:
  - Relevant regulatory correspondence
  - Current maps and tables depicting soil and groundwater concentrations
  - Maps depicting groundwater flow direction
  - Boring logs
  - Maps depicting the plume footprint
  - Cross Sections
  - Complete a MTA summary of the results of the meeting in a manner similar to, and compatible with, the CSM (conceptual site model). The summary will outline the strategy developed by the MTA, and detail the technical advice received, next steps and an acknowledgement of unknowns or uncertainties. A member of the core MTA team will review the MTA summary.

- A member of the MTA team (or their designee) will be included in the Quality Control review process of any document (work plan, report etc.). This review will be limited to ensuring that the document accurately reflects the strategy and steps laid out in the MTA summary.

- Any time the PM feels their project may benefit from an additional MTA meeting, they need to discuss with Senior Management.

10.4 Technical Review

Technical review is done by SESCO Group staff with technical expertise equivalent to or greater than those who produced the initial work product. Staff conducting technical reviews generally has an adequate degree of independence from responsibility for the final work product.

10.5 Data Quality Assessment

Like performance evaluation QA assessments, data quality assessments are most appropriate for those activities that gather and/or use verifiable data. Projects that are using data quality assessment, as needed, as one of their assessment tools address its use in their respective project-specific QMPs. Project-specific quality documentation is secured by SESCO Group's records retention policy and kept in discrete and confidential project folders throughout the lifecycle of the project. Project and data assessment qualifications are met by continual oversight of Senior Project Manager and COO/QA Manager of the MTA.

10.6 Assessment Planning

Assessment planning of project qualifications is met by the Project Manager, when he/she performs a detailed planning analysis of the SOW, while the Senior Project Manager provides continual oversight of the analysis and lower level staff. The outflow produced is captured securely in MS Project© and is kept in the secure project file folder.

10.7 Frequency of Assessments

Assessments shall be planned, scheduled and periodically conducted, and their results evaluated to measure the effectiveness of the implemented quality system. Assessments shall include an evaluation to determine and verify whether technical requirements, not just procedural compliance, are being implemented effectively. Assessment results shall be documented, reported to, and reviewed by management. Annual reviews and planning qualifications are met throughout the lifecycle of active projects. There is ongoing oversight, direction, and review from the Project Manager, Senior Project Manager, COO/QA Manager, and the Health & Safety Officer at SESCO Group.

10.8 Performance Evaluation

This assessment tool is not applicable for every environmental activity throughout the company, but rather is used by some company environmental activity areas that rely on contracted services, especially contracted laboratory services. Projects that use such contracted services should state whether they use QAPPs in their respective QMPs. Laboratories and other contractors used by SESCO Group shall have company-required quality systems in place for quantitative comparison.

10.9 Assessment Documentation and Reporting

All assessment activities will be documented for electronic and/or hard copy storage. Most documentation will consist of either a memorandum or email to be stored consistent with the Documents and Records Section of this QMP. Assessments will be emailed to management for review and analysis.

10.10 Corrective Actions

Corrective actions written and presented to SESCO Group (such as from a management system review or QAPP assessment) are always a priority for executive staff. Project Managers and Senior Project Managers shall implement the recommended quality system corrections with COO/QA Manager, Health and Safety Officer, and Senior Management input and continual oversight.

10.11 Dispute Resolution

Any disagreement by SESCO Group Managers or staff with respect to a corrective action recommendation will be mediated by Executive Staff. SESCO Group Executive Staff will take the lead in resolving any resource or policy issues that inhibit pursuit of corrective action measures by any company program area or project. SESCO Group Executive Staff could modify the assessment recommendation, or alter the quality system in a manner that would alter the QA Managers' assessment, or impact the type of corrective action needed.

11. QUALITY IMPROVEMENT

Purpose: To document how SESCO Group will improve the company-wide quality system.

11.1 Quality Improvement Process

The quality improvement process is established and implemented to continuously develop and improve the Quality System. Procedures are established and implemented to prevent recurrence as well as to detect and correct problems that adversely affect quality during all phases of technical and management activities. The relationship between cause and effect and the root causes of significant problems shall be determined. Appropriate corrective actions shall be planned, documented, and implemented in response to findings in a timely manner.

SESCO's staff is continuously encouraged to establish and maintain communications between customers and suppliers, not only through quarterly and/or monthly reports, but regular amicable communication to update project statuses and build rapport between staff, customers, and suppliers. This communication could be in the form of a phone call or an email; all email communication is to be saved and appropriately named according to SESCO's digital file structure regulations in the confidential project file folders. Any team member conducting phone call communication with a supplier and/or client is responsible for recording notes on said communication in the proper file folder. Obsolete information will be identified and properly disposed of according to SESCO's record retention policy at the following Project Team meeting.

It is the Project Manager's responsibility to identify project specific process improvement opportunities based on the unique relationship the client has with the company and the specific services a supplier is providing. The Project Manager will continually make notes on how to improve the communication process and report the findings to the Project Team and QA manager throughout the lifecycle of the project during scheduled project meetings. The Project Team is then responsible for utilizing the Project Manager's observations and identifying and proposing solutions to best implement new communication processes. The QA Manager is responsible for recognizing and implementing new best practices and optimizing new process improvement opportunities based on project and client needs for all projects. Based upon analyzed results, the QA Manager may implement and establish a new company-wide communication process and/or procedure, or make amendments to current processes based on its success on multiple projects and reporting cycles.

The SESCO Group Senior Management team actively supports quality improvement by encouraging technical staff to:

- Continually evaluate the effectiveness of current policies, procedures, and practices via discussions with the SESCO Group Senior Management team, and the COO/QA Manager.
- Apply innovative approaches while maintaining efficiency and accuracy. Conduct routine management reviews to define and celebrate success while recognizing and eliminating undesirable processes or results.

The above goals are achieved by continually committing company resources to SESCO Group's quality management efforts. Peer review and performance audits will enable the constant evaluation of SESCO Group programs, projects, and individual staff performance. The Quality Management system is designed to identify opportunities for improving the measurement process. Improvement can take the form of preventing quality problems from occurring by adjusting current work processes, or by seeking better ways to complete the work. The integrated Quality Management process seeks to prevent quality problems from occurring, recognize challenges early, and celebrate success. Continual improvement is achieved through consistent evaluations of program, project, and individual performances. Continuous oversight by the Project Manager, Senior Project Manager, COO/QA Manager, and the Health and Safety Officer allows SESCO Group to revise program protocols to reflect changing methods and procedures.

11.2 Sampling Quality Improvement Process

SESCO's field staff and technical staff are responsible for ensuring the quality of scientific data and collected samples for every project. Due to unforeseen circumstances, samples may not get analyzed in accordance with proper technical procedures. In these instances, SESCO is responsible for performing re-sampling, updating technical data, and providing subcontractors with new samples in accordance with proper technical procedures. The quality process and procedure for sampling meets the minimum standards of quality and the company is responsible for always providing valid samples that meet all technical and scientific criteria.

11.3 Program Review

SESCO Group Quality Management program will be reviewed annually to determine that SOPs are in place and to revise them if necessary, to ensure that QAPPs are written and approved in advance of project start-up, and to ensure that data quality assessments are made. All deviations and discrepancies noted during a review will be corrected promptly. Recommendations for modifications from SESCO Group Technical Staff will be in writing and submitted to the SESCO Group COO/QA Manager for review, implementation, and inclusion during regular review sessions, as described in the Quality Assessment and Response section.